# Package 'cfbfastR'

September 9, 2025

```
Version 2.0.0
Description A utility to quickly obtain clean and tidy college football
      data. Serves as a wrapper around the
      <a href="https://collegefootballdata.com/">https://collegefootballdata.com/</a> API and provides functions to
      access live play by play and box score data from ESPN
      <a href="https://www.espn.com">https://www.espn.com</a> when available. It provides users the
      capability to access a plethora of endpoints, and supplement that data
      with additional information (Expected Points Added/Win Probability
      added).
License MIT + file LICENSE
URL https://cfbfastR.sportsdataverse.org/,
      https://github.com/sportsdataverse/cfbfastR
BugReports https://github.com/sportsdataverse/cfbfastR/issues
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      (>= 1.0.7), RcppParallel (>= 5.1.4), rlang (>= 0.4.10), stringr
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Title Access College Football Play by Play Data

2 Contents

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cfbd\_betting\_lines

# **CFBD Betting Lines Endpoint Overview**

# Description

# Get betting lines information for games

# Usage

```
cfbd_betting_lines(
  game_id = NULL,
  year = NULL,
  week = NULL,
  season_type = "regular",
  team = NULL,
  home_team = NULL,
  away_team = NULL,
  conference = NULL,
  line_provider = NULL)
```

# Arguments

game_id	(Integer optional): Game ID filter for querying a single game. Required if year not provided  Can be found using the cfbd_game_info() function
year	(Integer optional): Year, 4 digit format(YYYY). Required if game_id not provided
week	( <i>Integer</i> optional): Week - values from 1-15, 1-14 for seasons pre-playoff (i.e. 2013 or earlier)
season_type	(String default regular): Select Season Type: regular, postseason, both, allstar, spring_regular, spring_postseason
team	(String optional): D-I Team
home_team	(String optional): Home D-I Team
away_team	(String optional): Away D-I Team

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conference (String optional): Conference abbreviation - Select a valid FBS conference

Conference abbreviations P5: ACC, B12, B1G, SEC, PAC

Conference abbreviations G5 and FBS Independents: CUSA, MAC, MWC, Ind,

SBC, AAC

line\_provider (String optional): Select Line Provider - Caesars, consensus, numberfire, or

teamrankings

#### Value

Betting information for games with the following columns:

game\_id:integer. Unique game identifier - game\_id.

season:integer. Season parameter.

season\_type:character.) Season Type (regular, postseason, both

week:integer. Week, values from 1-15, 1-14 for seasons pre-playoff (i.e. 2013 or earlier).

start\_date:character. Start Date

home\_team:character. Home D-I Team.

home\_conference:character. Home D-I Conference.

home\_classification:character. Home Conference classification (fbs,fcs,ii,iii)

home\_score:integer. Home Score.

away\_team:character. Away D-I Team.

away\_conference:character. Away D-I Conference.

away\_classification:character. Away Conference classification (fbs,fcs,ii,iii)

away\_score:integer. Away Score.
provider:character. Line provider.

spread:character. Spread for the game.

formatted\_spread:character. Formatted spread for the game.

**spread\_open:character.** Opening spread for the game.

over\_under:character. Over/Under for the game.

over\_under\_open:character. Opening over/under for the game.

**home\_moneyline:character.** Home team moneyline.

away\_moneyline:character. Away team moneyline.

# Examples

```
try(cfbd_betting_lines(year = 2018, week = 12, team = "Florida State"))
```

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cfbd\_calendar

Get calendar of weeks by season.

# Description

Get calendar of weeks by season.

### Usage

```
cfbd_calendar(year)
```

# Arguments

```
year (Integer required): Year, 4 digit format (YYYY)
```

#### Value

```
cfbd_calendar() - A data frame with 5 variables:

season: character. Calendar season.

week: integer. Calendar game week.

season_type: character Season type of calendar week.

first_game_start: character. First game start time of the calendar week.

last_game_start: character. Last game start time of the calendar week.
```

#### See Also

```
Other CFBD Games: cfbd_game_box_advanced(), cfbd_game_info(), cfbd_game_media(), cfbd_game_player_stats(), cfbd_game_records(), cfbd_game_team_stats(), cfbd_game_weather(), cfbd_live_scoreboard()
```

# Examples

```
try(cfbd_calendar(2019))
```

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cfbd\_coaches

#### **CFBD Coaches Endpoint Overview**

#### **Description**

**Coach information search** A coach search function which provides coaching records and school history for a given coach

# Usage

```
cfbd_coaches(
  first = NULL,
  last = NULL,
  team = NULL,
  year = NULL,
  min_year = NULL,
  max_year = NULL
)
```

## **Arguments**

first (*String* optional): First name for the coach you are trying to look up last (*String* optional): Last name for the coach you are trying to look up

team (String optional): Team - Select a valid team, D1 football

year (*Integer* optional): Year, 4 digit format (*YYYY*).

min\_year (*Integer* optional): Minimum Year filter (inclusive), 4 digit format (*YYYY*).

max\_year (*Integer* optional): Maximum Year filter (inclusive), 4 digit format (*YYYY*)

#### Value

first\_name:character. First name of coach.

last\_name:character. Last name of coach.

hire\_date:character. Hire date of coach.

school:character. School of coach.

year:integer. Season of record.

games:integer. Games as coach.

wins:integer. Wins for the season.

losses:integer. Losses for the season.

ties:integer. Ties for the season.

preseason\_rank:integer. Preseason rank for the school of coach.

postseason\_rank:integer. Postseason rank for the school of coach.

srs:character. Simple Rating System adjustment for team.

sp\_overall:character. Bill Connelly's SP+ overall for team.

sp\_defense:character. Bill Connelly's SP+ defense for team.

sp\_defense:character. Bill Connelly's SP+ defense for team.

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#### **Examples**

```
try(cfbd_coaches(first = "Nick", last = "Saban", team = "alabama"))
```

cfbd\_conferences

# **CFBD Conferences Endpoint Overview**

# Description

**Get college football conference information** Pulls all college football conferences and returns as data frame

# Usage

```
cfbd_conferences()
```

# Value

```
cfbd_conferences() - A data frame with 94 rows and 5 variables:
conference_id: Referencing conference id.
name: Conference name.
long_name: Long name for Conference.
abbreviation: Conference abbreviation.
classification: Conference classification (fbs,fcs,ii,iii)
```

# **Examples**

```
try(cfbd_conferences())
```

 $cfbd\_draft$ 

# **CFBD NFL Draft Endpoint Overview**

# Description

```
cfbd_draft_teams(): Get list of NFL teams.
cfbd_draft_positions(): Get list of NFL positions for mapping to college positions.
cfbd_draft_picks(): Get list of NFL Draft picks.
```

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# **Details**

```
Get list of NFL teams:
```

```
cfbd_draft_teams()
```

# Get list of NFL positions for mapping to collegiate:

```
cfbd_draft_positions()
```

# **Get list of NFL Draft picks:**

```
cfbd_draft_picks(year = 2020, college = "Texas")
cfbd_draft_picks(nfl_team = "Cincinatti")
```

cfbd\_draft\_picks

Get list of NFL draft picks

# Description

# Get list of NFL draft picks

# Usage

```
cfbd_draft_picks(
  year = NULL,
  nfl_team = NULL,
  college = NULL,
  conference = NULL,
  position = NULL
```

# Arguments

year	(Integer required): NFL draft class, 4 digit format (YYYY)
nfl_team	(String): NFL drafting team, see cfbd_draft_teams() for valid selections.
college	$(String)$ : NFL draftee college team, see cfbd_team_info() for valid selections.
conference	(String): NFL draftee college team conference, see cfbd_conferences() for valid selections.
position	$(String)$ : NFL position abbreviation, see cfbd_draft_positions() for valid selections.

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#### Value

```
cfbd_draft_picks() - A data frame with 23 variables:
college_athlete_id: integer. College athlete referencing id.
nfl_athlete_id: integer NFL athlete referencing id.
college_id: integer College team referencing id.
college_team: character College team name.
college_conference: character Conference of college team.
nfl_team_id: integer. NFL team ID.
nfl_team: character NFL team name of drafted player.
year: integer. NFL draft class year.
overall: integer. Overall draft pick number.
round: integer. Round of NFL draft the draftee was picked in.
pick: integer. Pick number of the NFL draftee within the round they were picked in.
name: character. NFL draftee name.
position: character. NFL draftee position.
height: double. NFL draftee height.
weight: integer. NFL draftee weight.
pre_draft_ranking: integer Pre-draft ranking (ESPN).
pre_draft_position_ranking: integer. Pre-draft position ranking (ESPN).
pre_draft_grade: double. Pre-draft scouts grade (ESPN).
hometown_info_city: character. Hometown of the NFL draftee.
hometown_info_state_province: character. Hometown state of the NFL draftee.
hometown_info_country: character. Hometown country of the NFL draftee.
hometown_info_latitude: character. Hometown latitude of the NFL draftee.
hometown_info_longitude: character. Hometown longitude of the NFL draftee.
hometown_info_county_fips: character. Hometown FIPS code of the NFL draftee.
Other CFBD Draft: cfbd_draft_positions(), cfbd_draft_teams()
```

#### See Also

#### **Examples**

```
try(cfbd_draft_picks(year = 2020))
try(cfbd_draft_picks(year = 2016, position = "PK"))
```

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```
cfbd_draft_positions Get list of NFL positions
```

#### **Description**

Get list of NFL positions

# Usage

```
cfbd_draft_positions()
```

#### Value

```
cfbd_draft_positions() - A data frame with 2 variables:
position_name: character. NFL Position group name.
position_abbreviation: integer NFL position group abbreviation.
```

#### See Also

```
Other CFBD Draft: cfbd_draft_picks(), cfbd_draft_teams()
```

## **Examples**

```
try(cfbd_draft_positions())
```

cfbd\_draft\_teams

Get list of NFL teams

#### **Description**

Get list of NFL teams

## Usage

```
cfbd_draft_teams()
```

## Value

```
cfbd_draft_teams() - A data frame with 4 variables:

nfl_location: character. NFL team location (city).

nfl_nickname: integer NFL team nickname (mascot).

nfl_display_name: integer NFL team display name (usually more neat/complete).

nfl_logo: character URL for NFL team logo.
```

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#### See Also

```
Other CFBD Draft: cfbd_draft_picks(), cfbd_draft_positions()
```

## **Examples**

```
try(cfbd_draft_teams())
```

cfbd\_drives

#### **CFBD Drives Endpoint**

# Description

## Get college football game drives

## Usage

```
cfbd_drives(
  year,
  season_type = "regular",
  week = NULL,
  team = NULL,
  offense_team = NULL,
  defense_team = NULL,
  conference = NULL,
  offense_conference = NULL,
  defense_conference = NULL,
  division = "fbs"
)
```

# **Arguments**

year (*Integer* required): Year, 4 digit format (*YYYY*)

season\_type (String default regular): Season type - regular, postseason, both, allstar, spring\_regular,

spring\_postseason

week (*Integer* optional): Week - values from 1-15, 1-14 for seasons pre-playoff, i.e.

2013 or earlier

team (String optional): D-I Team

offense\_team (String optional): Offense D-I Team defense\_team (String optional): Defense D-I Team

conference (String optional): DI Conference abbreviation - Select a valid FBS conference

Conference abbreviations P5: ACC, B12, B1G, SEC, PAC Conference abbreviations C5 and FDS Laboratory CVSA, MAC, MWG, Lab SDC, AAC

ations G5 and FBS Independents: CUSA, MAC, MWC, Ind, SBC, AAC

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offense\_conference

(*String* optional): Offense DI Conference abbreviation - Select a valid FBS conference Conference abbreviations P5: ACC, B12, B1G, SEC, PAC Conference abbreviations G5 and FBS Independents: CUSA, MAC, MWC, Ind, SBC, AAC

defense\_conference

(*String* optional): Defense DI Conference abbreviation - Select a valid FBS conference Conference abbreviations P5: ACC, B12, B1G, SEC, PAC Conference abbreviations G5 and FBS Independents: CUSA, MAC, MWC, Ind, SBC, AAC

division

(String optional): Division abbreviation - Select a valid division: fbs/fcs/ii/iii

#### Value

cfbd\_drives() - A data frame with variables as follows: offense:character. Drive offense. offense conference: character. Drive offense's conference. defense:character. Drive defense. defense\_conference:character. Drive defense's conference. game\_id:integer. Unique game identifier - game\_id. drive\_id:character. Unique drive identifier - drive\_id. drive\_number:integer. Drive number in game. scoring:logical. Drive ends in a score. start\_period:integer. Period (or Quarter) in which the drive starts. start\_yardline:integer. Yard line at the drive start. start\_yards\_to\_goal:integer. Yards-to-Goal at the drive start. end\_period:integer. Period (or Quarter) in which the drive ends. end\_yardline:integer. Yard line at drive end. end\_yards\_to\_goal:integer. Yards-to-Goal at drive end. plays:integer. Number of drive plays. yards:integer. Total drive yards. drive\_result:character. Result of the drive description. is\_home\_offense:logical. Flag for if the offense on the field is the home offense start\_offense\_score:numeric. Offense score at the start of the drive. start\_defense\_score:numeric. Defense score at the start of the drive. end\_offense\_score:numeric. Offense score at the end of the drive. end\_defense\_score:numeric. Defense score at the end of the drive. time\_minutes\_start:integer. Minutes at drive start. time\_seconds\_start:integer. Seconds at drive start. time\_minutes\_end:integer. Minutes at drive end. time\_seconds\_end:integer. Seconds at drive end. time\_minutes\_elapsed:double. Minutes elapsed during drive. time\_seconds\_elapsed:integer. Seconds elapsed during drive.

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#### **Examples**

```
try(cfbd_drives(year=2018, week = 1, team = "TCU"))
try(cfbd_drives(2018, team = "Texas A&M", defense_conference = "SEC"))
```

cfbd\_games

# **CFBD Games Endpoint Overview**

### **Description**

```
Get results, statistics and information for games

cfbd_game_box_advanced(): Get game advanced box score information.

cfbd_game_player_stats(): Get results information from games.

cfbd_game_team_stats(): Get team statistics by game.

cfbd_game_info(): Get results information from games.

cfbd_live_scoreboard(): Get live scoreboard information.

cfbd_game_weather(): Get weather from games.

cfbd_game_records(): Get team records by year.

cfbd_calendar(): Get calendar of weeks by season.

cfbd_game_media(): Get game media information (TV, radio, etc).
```

# Details

#### Get game advanced box score information.:

```
cfbd_game_box_advanced(game_id = 401114233)
```

#### Get player statistics by game:

```
cfbd_game_player_stats(2018, week = 15, conference = "Ind")
cfbd_game_player_stats(2013, week = 1, team = "Florida State", category = "passing")
```

#### Get team records by year:

```
cfbd_game_records(2018, team = "Notre Dame")
cfbd_game_records(2013, team = "Florida State")
```

# Get team statistics by game:

```
cfbd_game_team_stats(2019, team = "LSU")
cfbd_game_team_stats(2013, team = "Florida State")
```

## **Get results information from games.:**

```
cfbd_game_info(2018, week = 1)

cfbd_game_info(2018, week = 7, conference = "Ind")

# 7 OTs LSU @ TAMU
cfbd_game_info(2018, week = 13, team = "Texas A&M", quarter_scores = TRUE)

Get weather from games.:

cfbd_game_weather(2018, week = 1)

cfbd_game_info(2018, week = 7, conference = "Ind")

Get calendar of weeks by season.:

cfbd_calendar(2019)

Get game media information (TV, radio, etc).:

cfbd_game_media(2019, week = 4, conference = "ACC")
```

cfbd\_game\_box\_advanced

Get game advanced box score information.

## Description

Get game advanced box score information.

#### Usage

```
cfbd_game_box_advanced(game_id, long = FALSE)
```

#### **Arguments**

game\_id (Integer required): Game ID filter for querying a single game Can be found

using the cfbd\_game\_info() function

long (*Logical* default FALSE): Return the data in a long format.

# Value

```
cfbd_game_box_advanced() - A data frame with 2 rows and 69 variables:
team: character. Team name.
plays: double. Number of plays.
ppa_overall_total: double. Predicted points added (PPA) overall total.
```

Q4.

```
ppa_overall_quarter1: double. Predicted points added (PPA) overall Q1.
ppa_overall_quarter2: double. Predicted points added (PPA) overall Q2.
ppa_overall_quarter3: double. Predicted points added (PPA) overall Q3.
ppa_overall_quarter4: double. Predicted points added (PPA) overall Q4.
ppa_passing_total: double. Passing predicted points added (PPA) total.
ppa_passing_quarter1: double. Passing predicted points added (PPA) Q1.
ppa_passing_quarter2: double. Passing predicted points added (PPA) Q2.
ppa_passing_quarter3: double. Passing predicted points added (PPA) Q3.
ppa_passing_quarter4: double. Passing predicted points added (PPA) Q4.
ppa_rushing_total: double. Rushing predicted points added (PPA) total.
ppa_rushing_quarter1: double. Rushing predicted points added (PPA) Q1.
ppa_rushing_quarter2: double. Rushing predicted points added (PPA) O2.
ppa_rushing_quarter3: double. Rushing predicted points added (PPA) Q3.
ppa_rushing_quarter4: double. Rushing predicted points added (PPA) Q4.
cumulative_ppa_plays: double. Cumulative predicted points added (PPA) added total.
cumulative_ppa_overall_total: double. Cumulative predicted points added (PPA) total.
cumulative_ppa_overall_quarter1: double. Cumulative predicted points added (PPA) Q1.
cumulative_ppa_overall_quarter2: double. Cumulative predicted points added (PPA) Q2.
cumulative_ppa_overall_quarter3: double. Cumulative predicted points added (PPA) Q3.
cumulative_ppa_overall_quarter4: double. Cumulative predicted points added (PPA) Q4.
cumulative_ppa_passing_total: double. Cumulative passing predicted points added (PPA) to-
    tal.
cumulative_ppa_passing_quarter1: double. Cumulative passing predicted points added (PPA)
    Q1.
cumulative_ppa_passing_quarter2: double. Cumulative passing predicted points added (PPA)
    Q2.
cumulative_ppa_passing_quarter3: double. Cumulative passing predicted points added (PPA)
cumulative_ppa_passing_quarter4: double. Cumulative passing predicted points added (PPA)
    Q4.
cumulative_ppa_rushing_total: double. Cumulative rushing predicted points added (PPA) to-
cumulative_ppa_rushing_quarter1: double. Cumulative rushing predicted points added (PPA)
    Q1.
cumulative_ppa_rushing_quarter2: double. Cumulative rushing predicted points added (PPA)
cumulative_ppa_rushing_quarter3: double. Cumulative rushing predicted points added (PPA)
```

cumulative\_ppa\_rushing\_quarter4: double. Cumulative rushing predicted points added (PPA)

```
success_rates_overall_total: double. Success rates overall total.
success_rates_overall_quarter1: double. Success rates overall Q1.
success_rates_overall_quarter2: double. Success rates overall Q2.
success_rates_overall_quarter3: double. Success rates overall Q3.
success_rates_overall_quarter4: double. Success rates overall Q4.
success_rates_standard_downs_total: double. Success rates standard downs total.
success_rates_standard_downs_quarter1: double. Success rates standard downs Q1.
success_rates_standard_downs_quarter2: double. Success rates standard downs Q2.
success_rates_standard_downs_quarter3: double. Success rates standard downs Q3.
success_rates_standard_downs_quarter4: double. Success rates standard downs Q4.
success_rates_passing_downs_total: double. Success rates passing downs total.
success_rates_passing_downs_quarter1: double. Success rates passing downs Q1.
success_rates_passing_downs_quarter2: double. Success rates passing downs Q2.
success_rates_passing_downs_quarter3: double. Success rates passing downs Q3.
success_rates_passing_downs_quarter4: double. Success rates passing downs Q4.
explosiveness_overall_total: double. Explosiveness rates overall total.
explosiveness_overall_quarter1: double. Explosiveness rates overall Q1.
explosiveness_overall_quarter2: double. Explosiveness rates overall Q2.
explosiveness_overall_quarter3: double. Explosiveness rates overall Q3.
explosiveness_overall_quarter4: double. Explosiveness rates overall Q4.
rushing_power_success: double. Rushing power success rate.
rushing_stuff_rate: double. Rushing stuff rate.
rushing_line_yds: double. Rushing offensive line yards.
rushing_line_yds_avg: double. Rushing line yards average.
rushing_second_lvl_yds: double. Rushing second-level yards.
rushing_second_lvl_yds_avg: double. Average second level yards per rush.
rushing_open_field_yds: double. Rushing open field yards.
rushing_open_field_yds_avg: double. Average rushing open field yards average.
havoc_total: double. Total havoc rate.
havoc_front_seven: double. Front-7 players havoc rate.
havoc_db: double. Defensive back players havoc rate.
scoring_opps_opportunities: double. Number of scoring opportunities.
scoring_opps_points: double. Points on scoring opportunity drives.
scoring_opps_pts_per_opp: double. Points per scoring opportunity drives.
field_pos_avg_start: double. Average starting field position.
field_pos_avg_starting_predicted_pts: double. Average starting predicted points (PP) for
    the average starting field position.
```

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#### See Also

```
Other CFBD Games: cfbd_calendar(), cfbd_game_info(), cfbd_game_media(), cfbd_game_player_stats(), cfbd_game_records(), cfbd_game_team_stats(), cfbd_game_weather(), cfbd_live_scoreboard()
```

## **Examples**

```
try(cfbd_game_box_advanced(game_id = 401114233))
```

cfbd\_game\_info

Get results information from games.

# **Description**

Get results information from games.

#### Usage

```
cfbd_game_info(
  year,
  week = NULL,
  season_type = "regular",
  team = NULL,
  home_team = NULL,
  away_team = NULL,
  conference = NULL,
  division = "fbs",
  game_id = NULL,
  quarter_scores = FALSE
)
```

#### **Arguments**

year (Integer required): Year, 4 digit format(YYYY)

week (*Integer* optional): Week - values from 1-15, 1-14 for seasons pre-playoff (i.e.

2013 or earlier)

season\_type (String default regular): Select Season Type: regular, postseason, both, allstar,

spring\_regular, spring\_postseason

team (String optional): D-I Team home\_team (String optional): Home D-I Team

away\_team (String optional): Away D-I Team

conference (String optional): Conference abbreviation - Select a valid FBS conference Con-

ference abbreviations P5: ACC, B12, B1G, SEC, PAC Conference abbreviations

G5 and FBS Independents: CUSA, MAC, MWC, Ind, SBC, AAC

cfbd\_game\_info

division (String optional): Division abbreviation - Select a valid division: fbs/fcs/ii/iii

game\_id (Integer optional): Game ID filter for querying a single game

quarter\_scores (Logical default FALSE): This is a parameter to return the list columns that give

the score at each quarter: home\_line\_scores and away\_line\_scores. I have defaulted the parameter to false so that you will not have to go to the trouble of

dropping it.

#### Value

cfbd\_game\_info() - A data frame with 22 variables:
game\_id: integer. Referencing game id.
season: integer. Season of the game.
week: integer. Game week.
season\_type: character. Season type of the game.
start\_date: character. Game date.
start\_time\_tbd: logical. TRUE/FALSE flag for if the game's start time is to be determined.
neutral\_site: logical. TRUE/FALSE flag for the game taking place at a neutral site.
conference\_game: logical. TRUE/FALSE flag for this game qualifying as a conference game.
attendance: integer. Reported attendance at the game.

venue\_id: integer. Referencing venue id.

venue: character. Venue name.

home\_id: **integer.** Home team referencing id. home\_team: **character.** Home team name.

home\_conference: character. Home team conference.

home\_division: character. Home team division.

home\_points: integer. Home team points.

home\_post\_win\_prob: character. Home team post-game win probability.

 $\label{loss:character:} home\_pregame\_elo: \textbf{character.} \ Home\ team\ pre-game\ ELO\ rating.$ 

home\_postgame\_elo: **character.** Home team post-game ELO rating.

away\_id: integer. Away team referencing id.

away\_team: **character.** Away team name.

away\_conference: character. Away team conference.

away\_division: character. Away team division.

away\_points: integer. Away team points.

away\_post\_win\_prob: character. Away team post-game win probability.

away\_pregame\_elo: character. Away team pre-game ELO rating.

away\_postgame\_elo: character. Away team post-game ELO rating.

excitement\_index: character. Game excitement index.

highlights: character. Game highlight urls.

notes: character. Game notes.

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## See Also

```
Other CFBD Games: cfbd_calendar(), cfbd_game_box_advanced(), cfbd_game_media(), cfbd_game_player_stats(cfbd_game_records(), cfbd_game_team_stats(), cfbd_game_weather(), cfbd_live_scoreboard()
```

#### **Examples**

```
try(cfbd_game_info(2018, week = 7, conference = "Ind"))
```

cfbd\_game\_media

Get game media information (TV, radio, etc).

#### **Description**

Get game media information (TV, radio, etc).

# Usage

```
cfbd_game_media(
  year,
  week = NULL,
  season_type = "both",
  team = NULL,
  conference = NULL,
  media_type = NULL,
  division = "fbs"
)
```

#### **Arguments**

year (*Integer* required): Year, 4 digit format (*YYYY*)

week (*Integer* optional): Week, values from 1-15, 1-14 for seasons pre-playoff (i.e.

2013 or earlier)

season\_type (String default both): Select Season Type, regular, postseason, both, allstar,

spring\_regular, spring\_postseason

team (String optional): D-I Team

conference (String optional): Conference abbreviation - Select a valid FBS conference Con-

ference abbreviations P5: ACC, B12, B1G, SEC, PAC Conference abbreviations

G5 and FBS Independents: CUSA, MAC, MWC, Ind, SBC, AAC

media\_type (String optional): Media type filter: tv, radio, web, ppv, or mobile

division (String optional): Division abbreviation - Select a valid division: fbs/fcs/ii/iii

#### Value

```
cfbd_game_media() - A data frame with 13 variables:

game_id: integer. Referencing game id.
season: integer. Season of the game.

week: integer. Game week.
season_type: character. Season type of the game.
start_time: character. Game start time.
is_start_time_tbd: logical. TRUE/FALSE flag for if the start time is still to be determined.
home_team: character. Home team of the game.
home_conference: character. Conference of the home team.
away_team: character. Away team of the game.
away_conference: character. Conference of the away team.
tv: list. TV broadcast networks.
radio: logical. Radio broadcast networks.
web: list. Web viewing platforms carrying the game.
```

#### See Also

```
Other CFBD Games: cfbd_calendar(), cfbd_game_box_advanced(), cfbd_game_info(), cfbd_game_player_stats() cfbd_game_records(), cfbd_game_team_stats(), cfbd_game_weather(), cfbd_live_scoreboard()
```

#### **Examples**

```
try(cfbd\_game\_media(2019, week = 4, conference = "ACC"))
```

```
cfbd_game_player_stats
```

#### Get player statistics by game

#### **Description**

# Get player statistics by game

## Usage

```
cfbd_game_player_stats(
  year,
  week = NULL,
  season_type = "regular",
  team = NULL,
  conference = NULL,
  category = NULL,
  game_id = NULL
)
```

#### **Arguments**

year (*Integer* required): Year, 4 digit format(*YYYY*)

week (*Integer* optional): Week - values from 1-15, 1-14 for seasons pre-playoff (i.e.

2013 or earlier)

season\_type (String default regular): Select Season Type: regular, postseason, both, allstar,

spring\_regular, spring\_postseason

team (String optional): D-I Team

conference (String optional): Conference abbreviation - Select a valid FBS conference Con-

ference abbreviations P5: ACC, B12, B1G, SEC, PAC Conference abbreviations

G5 and FBS Independents: CUSA, MAC, MWC, Ind, SBC, AAC

category (String optional): Category filter (e.g defensive) Offense: passing, receiving,

rushing Defense: defensive, fumbles, interceptions Special Teams: punting,

puntReturns, kicking, kickReturns

game\_id (Integer optional): Game ID filter for querying a single game Can be found

using the cfbd\_game\_info() function

#### Value

cfbd\_game\_player\_stats() - A data frame with 32 variables:

col name types game id integer team character conference character home\_away character team points integer athlete id integer athlete\_name character defensive\_td numeric defensive\_qb\_hur numeric defensive\_pd numeric defensive\_tfl numeric defensive\_sacks numeric defensive\_solo numeric defensive\_tot numeric fumbles\_rec numeric fumbles\_lost numeric fumbles fum numeric punting long numeric punting\_in\_20 numeric punting\_tb numeric punting\_avg numeric punting yds numeric punting no numeric kicking\_pts numeric kicking\_long numeric

kicking_pct	numeric
punt_returns_td	numeric
punt_returns_long	numeric
punt_returns_avg	numeric
punt_returns_yds	numeric
punt_returns_no	numeric
kick_returns_td	numeric
kick_returns_long	numeric
kick_returns_avg	numeric
kick_returns_yds	numeric
kick_returns_no	numeric
interceptions_td	numeric
interceptions_yds	numeric
interceptions_int	numeric
receiving_long	numeric
receiving_td	numeric
receiving_avg	numeric
receiving_yds	numeric
receiving_rec	numeric
rushing_long	numeric
rushing_td	numeric
rushing_avg	numeric
rushing_yds	numeric
rushing_car	numeric
passing_int	numeric
passing_td	numeric
passing_avg	numeric
passing_yds	numeric
passing_completions	numeric
passing_attempts	numeric
passing_qbr	numeric
kicking_xpm	numeric
kicking_xpa	numeric
kicking_fgm	numeric
kicking_fga	numeric

# See Also

```
Other CFBD Games: cfbd_calendar(), cfbd_game_box_advanced(), cfbd_game_info(), cfbd_game_media(), cfbd_game_records(), cfbd_game_team_stats(), cfbd_game_weather(), cfbd_live_scoreboard()
```

# Examples

```
try(cfbd_game_player_stats(year = 2020, week = 15, team = "Alabama"))
try(cfbd_game_player_stats(2013, week = 1, team = "Florida State", category = "passing"))
```

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cfbd\_game\_records

Get team records by year

## **Description**

# Get team records by year

#### Usage

```
cfbd_game_records(year, team = NULL, conference = NULL)
```

# **Arguments**

year (*Integer* optional): Year, 4 digit format (*YYYY*)

team (String optional): Team - Select a valid team, D1 football

conference (String optional): DI Conference abbreviation - Select a valid FBS conference

Conference abbreviations P5: ACC, B12, B1G, SEC, PAC Conference abbreviations G5 and FBS Independents: CUSA, MAC, MWC, Ind, SBC, AAC

#### Value

```
cfbd_game_records() - A data frame with 35 variables:
year: integer. Season of the games.
team_id: integer. Referencing team id.
team: character. Team name.
classification: character Conference classification (fbs,fcs,ii,iii)
conference: character. Conference of the team.
division: character. Division in the conference of the team.
expected_wins: numeric Expected number of wins based on post-game win probability.
total_games: integer. Total number of games played.
total_wins: integer. Total wins.
total_losses: integer. Total losses.
total_ties: integer. Total ties.
conference_games: integer. Number of conference games.
conference_wins: integer. Total conference wins.
conference_losses: integer. Total conference losses.
conference_ties: integer. Total conference ties.
home_games: integer. Total home games.
home_wins: integer. Total home wins.
home_losses: integer. Total home losses.
```

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```
home_ties: integer. Total home ties.
away_games: integer. Total away games.
away_wins: integer. Total away wins.
away_losses: integer. Total away losses.
away_ties: integer. Total away ties.
neutral_games: integer. Total neutral site games.
neutral_wins: integer. Total neutral site wins.
neutral_losses: integer. Total neutral site losses.
neutral_ties: integer. Total neutral site ties.
regular_season_games: integer. Total regular season games.
regular_season_wins: integer. Total regular season wins.
regular_season_losses: integer. Total regular season losses.
regular_season_ties: integer. Total regular season ties.
postseason_games: integer. Total postseason games.
postseason_wins: integer. Total postseason wins.
postseason_losses: integer. Total postseason losses.
postseason_ties: integer. Total postseason ties.
```

## See Also

```
Other CFBD Games: cfbd_calendar(), cfbd_game_box_advanced(), cfbd_game_info(), cfbd_game_media(), cfbd_game_player_stats(), cfbd_game_team_stats(), cfbd_game_weather(), cfbd_live_scoreboard()
```

# **Examples**

```
try(cfbd_game_records(2018, team = "Notre Dame"))
try(cfbd_game_records(2013, team = "Florida State"))
```

#### **Description**

Get team statistics by game

#### Usage

```
cfbd_game_team_stats(
  year,
  week = NULL,
  season_type = "regular",
  team = NULL,
  conference = NULL,
  game_id = NULL,
  division = "fbs",
  rows_per_team = 1
)
```

#### **Arguments**

year (*Integer* required): Year, 4 digit format (*YYYY*). Required year filter (along with

one of week, team, or conference), unless game\_id is specified

week (*Integer* optional): Week - values range from 1-15, 1-14 for seasons pre-playoff,

i.e. 2013 or earlier. Required if team and conference not specified.

season\_type (String default: regular): Select Season Type - regular, postseason, both, allstar,

spring\_regular, spring\_postseason

team (String optional): D-I Team. Required if week and conference not specified.

conference (String optional): Conference abbreviation - Select a valid FBS conference Con-

ference abbreviations P5: ACC, B12, B1G, SEC, PAC Conference abbreviations G5 and FBS Independents: CUSA, MAC, MWC, Ind, SBC, AAC Required if

week and team not specified.

game\_id (Integer optional): Game ID filter for querying a single game Can be found

using the cfbd\_game\_info() function

division (String optional): Division abbreviation - Select a valid division: fbs/fcs/ii/iii

rows\_per\_team (Integer default 1): Both Teams for each game on one or two row(s), Options: 1

or 2

# Value

```
cfbd_game_team_stats() - A data frame with 78 variables:
```

game\_id: integer. Referencing game id.

team: character. Team name.

conference: character. Conference of the team.

home\_away: **character.** Home/Away Flag. opponent: **character.** Opponent team name.

opponent\_conference: character. Conference of the opponent team.

points: integer. Team points.

total\_yards: character. Team total yards.

net\_passing\_yards: character. Team net passing yards.

completion\_attempts:character. Team completion attempts. passing\_tds: character. Team passing touchdowns. yards\_per\_pass: character. Team game yards per pass. passes\_intercepted: character. Team passes intercepted. interception\_yards: character. Interception yards. interception\_tds: character. Interceptions returned for a touchdown. rushing\_attempts: character. Team rushing attempts. see also: ESTABLISH IT. rushing\_yards: character. Team rushing yards. rush\_tds: character. Team rushing touchdowns. yards\_per\_rush\_attempt: character. Team yards per rush attempt. first\_downs: character. First downs earned by the team. third\_down\_eff: character. Third down efficiency. fourth\_down\_eff: character. Fourth down efficiency. punt\_returns: character. Team punt returns. punt\_return\_yards: character. Team punt return yards. punt\_return\_tds: character. Team punt return touchdowns. kick\_return\_yards: character. Team kick return yards. kick\_return\_tds: character. Team kick return touchdowns. kick\_returns: character. Team kick returns. kicking\_points: character. Team points from kicking the ball. fumbles recovered: character. Team fumbles recovered. fumbles\_lost: character. Team fumbles lost. total\_fumbles: character. Team total fumbles. tackles: character. Team tackles. tackles\_for\_loss: character. Team tackles for a loss. sacks: character. Team sacks. qb\_hurries: character. Team QB hurries. interceptions: character. Team interceptions. passes\_deflected: character. Team passes deflected. turnovers: character. Team turnovers. defensive\_tds: character. Team defensive touchdowns. total\_penalties\_yards: character. Team total penalty yards. possession\_time: character. Team time of possession. points\_allowed: integer. Points for the opponent. total\_yards\_allowed: character. Opponent total yards. net\_passing\_yards\_allowed: **character.** Opponent net passing yards. completion\_attempts\_allowed: character. Oppponent completion attempts.

```
passing_tds_allowed: character. Opponent passing TDs.
yards_per_pass_allowed: character. Opponent yards per pass allowed.
passes_intercepted_allowed: character. Opponent passes intercepted.
interception_yards_allowed: character. Opponent interception yards.
interception_tds_allowed: character. Opponent interception TDs.
rushing_attempts_allowed: character. Opponent rushing attempts.
rushing_yards_allowed: character. Opponent rushing yards.
rush_tds_allowed: character. Opponent rushing touchdowns.
yards_per_rush_attempt_allowed: character. Opponent rushing yards per attempt.
first_downs_allowed: character. Opponent first downs.
third_down_eff_allowed: character. Opponent third down efficiency.
fourth_down_eff_allowed: character. Opponent fourth down efficiency.
punt_returns_allowed: character. Opponent punt returns.
punt_return_yards_allowed: character. Opponent punt return yards.
punt_return_tds_allowed: character. Opponent punt return touchdowns.
kick_return_yards_allowed: character. Opponent kick return yards.
kick_return_tds_allowed: character. Opponent kick return touchdowns.
kick_returns_allowed: character. Opponent kick returns.
kicking_points_allowed: character. Opponent points from kicking.
fumbles_recovered_allowed: character. Opponent fumbles recovered.
fumbles_lost_allowed: character. Opponent fumbles lost.
total_fumbles_allowed:character. Opponent total number of fumbles.
tackles_allowed:character. Opponent tackles.
tackles_for_loss_allowed: character. Opponent tackles for loss.
sacks_allowed: character. Opponent sacks.
qb_hurries_allowed: character. Opponent quarterback hurries.
interceptions_allowed: character. Opponent interceptions.
passes_deflected_allowed: character. Opponent passes deflected.
turnovers_allowed: character. Opponent turnovers.
defensive_tds_allowed: character. Opponent defensive touchdowns.
total_penalties_yards_allowed: character. Opponent total penalty yards.
possession_time_allowed: character. Opponent time of possession.
```

#### See Also

```
Other CFBD Games: cfbd_calendar(), cfbd_game_box_advanced(), cfbd_game_info(), cfbd_game_media(), cfbd_game_player_stats(), cfbd_game_records(), cfbd_game_weather(), cfbd_live_scoreboard()
```

# **Examples**

```
try(cfbd_game_team_stats(2022, team = "LSU"))
try(cfbd_game_team_stats(2013, team = "Florida State"))
```

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cfbd\_game\_weather

Get weather from games.

### **Description**

Get weather from games.

# Usage

```
cfbd_game_weather(
  year,
  week = NULL,
  season_type = "regular",
  team = NULL,
  conference = NULL
)
```

#### **Arguments**

year (*Integer* required): Year, 4 digit format(*YYYY*)

week (*Integer* optional): Week - values from 1-15, 1-14 for seasons pre-playoff (i.e.

2013 or earlier)

season\_type (String default regular): Select Season Type: regular, postseason, both, allstar,

spring\_regular, spring\_postseason

team (String optional): D-I Team

conference (String optional): Conference abbreviation - Select a valid FBS conference Con-

ference abbreviations P5: ACC, B12, B1G, SEC, PAC Conference abbreviations

G5 and FBS Independents: CUSA, MAC, MWC, Ind, SBC, AAC

#### Value

```
cfbd_game_weather() - A data frame with 23 variables:
game_id: integer. Referencing game id.
season: integer. Season of the game.
week: integer. Game week.
season_type: character. Season type of the game.
start_date: character. Game date.
start_time_tbd: logical. TRUE/FALSE flag for if the game's start time is to be determined.
game_indoors: logical. TRUE/FALSE flag for if the game is indoors
home_team: character. Home team name.
home_conference: character. Home team conference.
away_team: character. Away team name.
```

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```
away_conference: character. Away team conference.

venue_id: integer. Referencing venue id.

venue: character. Venue name.

temperature: integer. Temperature.

dew_point: integer. Dew Point.

humidity: integer. Humidity.

precipitation: integer. Precipitation.

snowfall: integer. Snowfall.

wind_direction: integer. Wind direction.

wind_speed: integer. Wind Speed.

pressure: integer. Pressure.

weather_condition_code: integer. Weather condition code.

weather_condition: character. Weather condition.
```

#### See Also

Other CFBD Games: cfbd\_calendar(), cfbd\_game\_box\_advanced(), cfbd\_game\_info(), cfbd\_game\_media(), cfbd\_game\_player\_stats(), cfbd\_game\_records(), cfbd\_game\_team\_stats(), cfbd\_live\_scoreboard()

cfbd\_live\_plays

Get live college football play-by-play data.

#### **Description**

Get live college football play-by-play data.

## Usage

```
cfbd_live_plays(game_id)
```

# **Arguments**

game\_id

(*Integer* Required): Game ID filter for querying a single game Can be found using the cfbd\_game\_info() function

# Value

cfbd\_live\_plays() - A data frame with 94 columns:

col\_nametypesgame\_idintegerhome\_team\_idintegerhome\_teamcharacter

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away\_team\_id integer away\_team character play\_id character home\_score integer away\_score integer period integer clock character wall clock character offense\_team\_id integer offense\_team character down integer distance integer yards\_to\_goal integer integer yards\_gained play\_type\_id integer play\_type character ppa numeric garbage\_time logical success logical rush\_pass character down\_type character play\_text character drive\_id character drive\_offense\_id integer drive\_offense\_team character drive defense id integer drive\_defense\_team character drive\_play\_count integer drive\_yards\_gained integer drive\_start\_period integer drive\_start\_clock character drive\_start\_yards\_to\_goal integer drive\_end\_period integer drive\_end\_clock character drive\_end\_yards\_to\_goal integer drive\_duration character drive\_scoring\_opportunity logical drive\_result character drive\_points\_gained integer current\_clock character current\_possession character home\_line\_scores\_q1 integer home\_line\_scores\_q2 integer home\_line\_scores\_q3 integer home\_line\_scores\_q4 integer home\_points integer home\_drives integer home\_scoring\_opportunities integer

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home\_points\_per\_opportunity numeric home\_average\_start\_yard\_line numeric home\_plays integer home\_line\_yards numeric home\_line\_yards\_per\_rush numeric home\_second\_level\_yards integer home second level yards per rush numeric home\_open\_field\_yards integer home\_open\_field\_yards\_per\_rush numeric home\_ppa\_per\_play numeric home\_total\_ppa numeric home\_passing\_ppa numeric home\_ppa\_per\_pass numeric home\_rushing\_ppa numeric home\_ppa\_per\_rush numeric home\_success\_rate numeric home\_standard\_down\_success\_rate numeric home\_passing\_down\_success\_rate numeric home\_explosiveness numeric home deserve to win numeric away\_line\_scores\_q1 integer away line scores q2 integer away\_line\_scores\_q3 integer away\_line\_scores\_q4 integer away\_points integer away drives integer away\_scoring\_opportunities integer away\_points\_per\_opportunity numeric away\_average\_start\_yard\_line numeric away\_plays integer away\_line\_yards numeric away\_line\_yards\_per\_rush numeric away\_second\_level\_yards integer away\_second\_level\_yards\_per\_rush numeric away\_open\_field\_yards integer away\_open\_field\_yards\_per\_rush numeric away\_ppa\_per\_play numeric away\_total\_ppa numeric away\_passing\_ppa numeric numeric away\_ppa\_per\_pass away\_rushing\_ppa numeric away\_ppa\_per\_rush numeric numeric away\_success\_rate away\_standard\_down\_success\_rate numeric away\_passing\_down\_success\_rate numeric away\_explosiveness numeric away\_deserve\_to\_win numeric cfbd\_live\_scoreboard 33

#### See Also

```
Other CFBD PBP: cfbd_pbp_data(), cfbd_play_stats_player(), cfbd_play_stats_types(), cfbd_play_types(), cfbd_plays()
```

#### **Examples**

```
try(cfbd_live_plays(game_id=401520182))
```

# Description

Get live game scoreboard information from games.

# Usage

```
cfbd_live_scoreboard(division = "fbs", conference = NULL)
```

# Arguments

division (String optional): Division abbreviation - Select a valid division: fbs/fcs/ii/iii

conference (String optional): Conference abbreviation - Select a valid FBS conference Conference abbreviations P5: ACC, B12, B1G, SEC, PAC Conference abbreviations G5 and FBS Independents: CUSA, MAC, MWC, Ind, SBC, AAC

#### Value

cfbd\_live\_scoreboard() - A data frame with 41 variables:

col\_name types integer game\_id start\_date character start\_time\_tbd logical character logical neutral\_site conference\_game logical character status period integer clock character situation character character possession last\_play character venue name character character venue\_city venue\_state character 34 cfbd\_metrics

home\_team\_id integer character home\_team\_name home\_team\_conference character home\_team\_classification character home\_team\_points integer home\_team\_line\_scores\_Q1 integer home\_team\_line\_scores\_Q2 integer home\_team\_line\_scores\_Q3 integer home\_team\_line\_scores\_Q4 integer away\_team\_id integer away\_team\_name character character away\_team\_conference away\_team\_classification character integer away\_team\_points away\_team\_line\_scores\_Q1 integer away\_team\_line\_scores\_Q2 integer away\_team\_line\_scores\_Q3 integer away\_team\_line\_scores\_Q4 integer weather\_temperature numeric weather\_description character weather\_wind\_speed numeric weather\_wind\_direction integer betting\_spread numeric betting\_over\_under numeric betting\_home\_moneyline integer betting\_away\_moneyline integer

#### See Also

Other CFBD Games: cfbd\_calendar(), cfbd\_game\_box\_advanced(), cfbd\_game\_info(), cfbd\_game\_media(), cfbd\_game\_player\_stats(), cfbd\_game\_records(), cfbd\_game\_team\_stats(), cfbd\_game\_weather()

# **Examples**

```
try(cfbd_live_scoreboard(division='fbs', conference = "B12"))
```

cfbd\_metrics

# **CFBD Metrics Endpoint Overview**

# Description

```
cfbd_metrics_fg_ep(): Get field goal expected points values.
```

cfbd\_metrics\_wepa\_team\_season(): Get opponent-adjusted team season statistics for predicted points added (PPA).

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```
cfbd_metrics_wepa_players_passing(): Get opponent-adjusted player passing statistics for pre-
        dicted points added (PPA).
    cfbd_metrics_wepa_players_rushing(): Get opponent-adjusted player rushing statistics for pre-
        dicted points added (PPA).
    cfbd_metrics_wepa_players_kicking(): Get Points Added Above Replacement (PAAR) rat-
        ings for kickers.
    cfbd_metrics_ppa_games(): Get team game averages for predicted points added (PPA).
    cfbd_metrics_ppa_players_games(): Get player game averages for predicted points added (PPA).
    cfbd_metrics_ppa_players_season(): Get player season averages for predicted points added
         (PPA).
    cfbd_metrics_ppa_predicted(): Calculate predicted points using Down and Distance.
    cfbd_metrics_ppa_teams(): Get team averages for predicted points added (PPA).
    cfbd_metrics_wp_pregame(): Get pre-game win probability data from CFBD API.
    cfbd_metrics_wp(): Get win probability chart data from CFBD API.
Details
     Get expected points for field goals by yards to goal and distance:
       cfbd_metrics_fg_ep()
     Get opponent-adjusted team season statistics for predicted points added (PPA):
      cfbd_metrics_wepa_team_season(year = 2019, team = "TCU")
     Get opponent-adjusted player passing statistics for predicted points added (PPA):
     cfbd_metrics_wepa_players_passing(year = 2019, team = "TCU")
     Get opponent-adjusted player rushing statistics for predicted points added (PPA):
     cfbd_metrics_wepa_players_rushing(year = 2019, team = "TCU")
     Get Points Added Above Replacement (PAAR) ratings for kickers:
     cfbd_metrics_wepa_players_kicking(year = 2019, team = "TCU")
     Get team game averages for predicted points added (PPA):
       cfbd_metrics_ppa_games(year = 2019, team = "TCU")
     Get player game averages for predicted points added (PPA):
       cfbd_metrics_ppa_players_games(year = 2019, week = 3, team = "TCU")
     Get player season averages for predicted points added (PPA):
       cfbd_metrics_ppa_players_season(year = 2019, team = "TCU")
     Get team averages for predicted points added (PPA):
```

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```
cfbd_metrics_ppa_teams(year = 2019, team = "TCU")
```

## Get pre-game and post-game win probability data from CFBD API:

```
cfbd_metrics_wp_pregame(year = 2019, week = 9, team = "Texas A&M")
cfbd_metrics_wp(game_id = 401012356)
```

## Calculate predicted points using down and distance:

```
cfbd_metrics_ppa_predicted(down = 1, distance = 10)
```

cfbd\_metrics\_fg\_ep

Get FG expected points from CFBD API

## **Description**

### Get FG expected points from CFBD API

## Usage

```
cfbd_metrics_fg_ep()
```

# Value

```
cfbd_metrics_fg_ep() - A data frame with 3 variables:

yards_to_goal: integer. Yards to the goal line (0-100).

distance: integer. Distance to goal posts from kicking location (17 yds further than yards to goal).

expected_points: double. Expected points given yards to goal / distance.
```

#### See Also

```
Other CFBD Metrics: cfbd_metrics_ppa_games(), cfbd_metrics_ppa_players_games(), cfbd_metrics_ppa_players cfbd_metrics_ppa_predicted(), cfbd_metrics_ppa_teams(), cfbd_metrics_wepa_players_kicking(), cfbd_metrics_wepa_players_passing(), cfbd_metrics_wepa_players_rushing(), cfbd_metrics_wepa_team_seascfbd_metrics_wp(), cfbd_metrics_wp_pregame()
```

#### **Examples**

```
try(cfbd_metrics_fg_ep())
```

```
cfbd_metrics_ppa_games
```

Get team game averages for predicted points added (PPA)

# Description

Get team game averages for predicted points added (PPA)

# Usage

```
cfbd_metrics_ppa_games(
  year,
  week = NULL,
  season_type = "both",
  team = NULL,
  conference = NULL,
  excl_garbage_time = FALSE
)
```

### **Arguments**

(Integer required): Year, 4 digit format (YYYY) year (Integer optional): Week - values range from 1-15, 1-14 for seasons pre-playoff, week i.e. 2013 or earlier (String default both): Season type - regular, postseason, both, allstar, spring\_regular, season\_type spring\_postseason team (String optional): D-I Team conference (String optional): Conference abbreviation - Select a valid FBS conference Conference abbreviations P5: ACC, B12, B1G, SEC, PAC Conference abbreviations G5 and FBS Independents: CUSA, MAC, MWC, Ind, SBC, AAC excl\_garbage\_time (Logical default FALSE): Select whether to exclude Garbage Time (TRUE or

#### Value

```
cfbd_metrics_ppa_games() - A data frame with 18 variables:
game_id: integer. Referencing game id.
season: integer. Season of the game.
week: integer. Game week of the season.
season_type: character. Season Type (regular, postseason, etc.
conference: character. Conference of the team.
team: character. Team name.
```

FALSE)

```
opponent: character. Team Opponent.

off_overall: character. Offense overall predicted points added (PPA).

off_passing: character. Offense passing predicted points added (PPA).

off_rushing: character. Offense rushing predicted points added (PPA).

off_first_down: character. Offense 1st down predicted points added (PPA).

off_second_down: character. Offense 2nd down predicted points added (PPA).

off_third_down: character. Offense 3rd down predicted points added (PPA).

def_overall: character. Defense overall predicted points added (PPA).

def_passing: character. Defense passing predicted points added (PPA).

def_rushing: character. Defense rushing predicted points added (PPA).

def_first_down: character. Defense 1st down predicted points added (PPA).

def_second_down: character. Defense 2nd down predicted points added (PPA).

def_third_down: character. Defense 3rd down predicted points added (PPA).
```

#### See Also

```
Other CFBD Metrics: cfbd_metrics_fg_ep(), cfbd_metrics_ppa_players_games(), cfbd_metrics_ppa_players_seatcfbd_metrics_ppa_predicted(), cfbd_metrics_ppa_teams(), cfbd_metrics_wepa_players_kicking(), cfbd_metrics_wepa_players_passing(), cfbd_metrics_wepa_players_rushing(), cfbd_metrics_wepa_team_seascfbd_metrics_wp(), cfbd_metrics_wp_pregame()
```

#### **Examples**

```
try(cfbd_metrics_ppa_games(year = 2019, team = "TCU"))
```

 ${\tt cfbd\_metrics\_ppa\_players\_games}$ 

Get player game averages for predicted points added (PPA)

# Description

Get player game averages for predicted points added (PPA)

#### Usage

```
cfbd_metrics_ppa_players_games(
  year = NULL,
  week = NULL,
  season_type = "both",
  team = NULL,
  position = NULL,
  athlete_id = NULL,
  threshold = NULL,
  excl_garbage_time = FALSE
)
```

#### **Arguments**

(*Integer* required): Year, 4 digit format (*YYYY*). year (*Integer* optional): Week - values range from 1-15, 1-14 for seasons pre-playoff, week i.e. 2013 or earlier. Required if team not provided. (String default both): Season type - regular, postseason, both, allstar, spring\_regular, season\_type spring\_postseason (String optional): D-I Team. Required if week not provided. team (string optional): Position abbreviation of the player you are searching for. Poposition sition Group - options include: • Offense: QB, RB, FB, TE, OL, G, OT, C, WR • Defense: DB, CB, S, LB, DE, DT, NT, DL • Special Teams: K, P, LS, PK athlete\_id (Integer optional): Athlete ID filter for querying a single athlete Can be found using the cfbd\_player\_info() function. threshold (Integer optional): Minimum threshold of plays. excl\_garbage\_time

(Logical default FALSE): Select whether to exclude Garbage Time (TRUE or

#### Value

```
cfbd_metrics_ppa_players_games() - A data frame with 9 variables:
season: integer. Season of the game.
week: integer. Game week of the season.
athlete_id: character. Athlete referencing id.
name: character. Athlete name.
position: character. Athlete position.
team: character. Team name.
opponent: character. Team Opponent name.
avg_PPA_all: double. Average overall predicted points added (PPA).
avg_PPA_rush: double. Average rushing predicted points added (PPA).
```

FALSE)

## See Also

```
Other CFBD Metrics: cfbd_metrics_fg_ep(), cfbd_metrics_ppa_games(), cfbd_metrics_ppa_players_season(), cfbd_metrics_ppa_predicted(), cfbd_metrics_ppa_teams(), cfbd_metrics_wepa_players_kicking(), cfbd_metrics_wepa_players_passing(), cfbd_metrics_wepa_players_rushing(), cfbd_metrics_wepa_team_seascfbd_metrics_wp(), cfbd_metrics_wp_pregame()
```

## **Examples**

```
try(cfbd_metrics_ppa_players_games(year = 2019, week = 3, team = "TCU"))
```

```
cfbd_metrics_ppa_players_season
```

Get player season averages for predicted points added (PPA)

### **Description**

Get player season averages for predicted points added (PPA)

## Usage

```
cfbd_metrics_ppa_players_season(
  year = NULL,
  team = NULL,
  conference = NULL,
  position = NULL,
  athlete_id = NULL,
  threshold = NULL,
  excl_garbage_time = FALSE
)
```

## **Arguments**

year (Integer optional): Year, 4 digit format (YYYY). Required if athlete\_id not pro-

vided

team (String optional): D-I Team.

conference (String optional): Conference abbreviation - S&P+ information by conference

Conference abbreviations P5: ACC, B12, B1G, SEC, PAC Conference abbrevi-

ations G5 and FBS Independents: CUSA, MAC, MWC, Ind, SBC, AAC

position (*string* optional): Position abbreviation of the player you are searching for. Po-

sition Group - options include:

• Offense: QB, RB, FB, TE, OL, G, OT, C, WR

• Defense: DB, CB, S, LB, DE, DT, NT, DL

• Special Teams: K, P, LS, PK

athlete\_id (Integer optional): Athlete ID filter for querying a single athlete. Required if

year not provided Can be found using the cfbd\_player\_info() function.

threshold (*Integer* optional): Minimum threshold of plays.

excl\_garbage\_time

(Logical default FALSE): Select whether to exclude Garbage Time (TRUE or

FALSE)

#### Value

```
cfbd_metrics_ppa_players_season() - A data frame with 23 variables:
```

```
season: integer. Season.
```

```
athlete_id: character. Athlete referencing id.
name: character. Athlete name.
position: character. Athlete Position.
team: character. Team name.
conference: character. Team conference.
countable_plays: integer. DEPRECATED Number of plays which can be counted.
avg_PPA_all: double. Average overall predicted points added (PPA).
avg_PPA_pass: double. Average passing predicted points added (PPA).
avg_PPA_rush: double. Average rushing predicted points added (PPA).
avg_PPA_first_down: double. Average 1st down predicted points added (PPA).
avg_PPA_second_down: double. Average 2nd down predicted points added (PPA).
avg_PPA_third_down: double. Average 3rd down predicted points added (PPA).
avg_PPA_standard_downs: double. Average standard down predicted points added (PPA).
avg_PPA_passing_downs: double. Average passing down predicted points added (PPA).
total_PPA_all: double. Total overall predicted points added (PPA).
total_PPA_pass: double. Total passing predicted points added (PPA).
total_PPA_rush: double. Total rushing predicted points added (PPA).
total_PPA_first_down: double. Total 1st down predicted points added (PPA).
total_PPA_second_down: double. Total 2nd down predicted points added (PPA).
total_PPA_third_down: double. Total 3rd down predicted points added (PPA).
total_PPA_standard_downs: double. Total standard down predicted points added (PPA).
total_PPA_passing_downs: double. Total passing down predicted points added (PPA).
```

#### See Also

```
Other CFBD Metrics: cfbd_metrics_fg_ep(), cfbd_metrics_ppa_games(), cfbd_metrics_ppa_players_games(), cfbd_metrics_ppa_predicted(), cfbd_metrics_ppa_teams(), cfbd_metrics_wepa_players_kicking(), cfbd_metrics_wepa_players_passing(), cfbd_metrics_wepa_players_rushing(), cfbd_metrics_wepa_team_seascfbd_metrics_wp(), cfbd_metrics_wp_pregame()
```

#### **Examples**

```
try(cfbd_metrics_ppa_players_season(year = 2019, team = "TCU"))
```

cfbd\_metrics\_ppa\_predicted

## Calculate predicted points using down and distance

# Description

Calculate predicted points using down and distance

# Usage

```
cfbd_metrics_ppa_predicted(down, distance)
```

# Arguments

```
down (Integer required): Down filter distance (Integer required): Distance filter
```

#### Value

```
cfbd_metrics_ppa_predicted() - A data frame with 2 variables:
yard_line: integer. Yards to goal
predicted_points: character. Predicted points at in that down-distance-yardline scenario
```

# See Also

```
Other CFBD Metrics: cfbd_metrics_fg_ep(), cfbd_metrics_ppa_games(), cfbd_metrics_ppa_players_games(), cfbd_metrics_ppa_players_season(), cfbd_metrics_ppa_teams(), cfbd_metrics_wepa_players_kicking(), cfbd_metrics_wepa_players_passing(), cfbd_metrics_wepa_players_rushing(), cfbd_metrics_wepa_team_seascfbd_metrics_wp(), cfbd_metrics_wp_pregame()
```

# **Examples**

```
try(cfbd_metrics_ppa_predicted(down = 1, distance = 10))
try(cfbd_metrics_ppa_predicted(down = 3, distance = 10))
```

```
cfbd_metrics_ppa_teams
```

## Get team averages for predicted points added (PPA)

# Description

Get team averages for predicted points added (PPA)

### Usage

```
cfbd_metrics_ppa_teams(
  year = NULL,
  team = NULL,
  conference = NULL,
  excl_garbage_time = FALSE
)
```

## **Arguments**

year (Integer optional): Year, 4 digit format (YYYY). Required if team not provided

team (String optional): D-I Team. Required if year not provided

conference (String optional): Conference name - select a valid FBS conference Conference

names P5: ACC, Big 12, Big Ten, SEC, Pac-12 Conference names G5 and FBS Independents: Conference USA, Mid-American, Mountain West, FBS Independents

dents, American Athletic

excl\_garbage\_time

(Logical default FALSE): Select whether to exclude Garbage Time (TRUE or

FALSE)

## Value

```
cfbd_metrics_ppa_teams() - A data frame with 21 variables:

season: integer. .

conference: character. .

team: character. .

off_overall: character. Offense overall predicted points added (PPA).

off_passing: character. Offense passing predicted points added (PPA).

off_rushing: character. Offense rushing predicted points added (PPA).

off_first_down: character. Offense 1st down predicted points added (PPA).

off_second_down: character. Offense 2nd down predicted points added (PPA).

off_third_down: character. Offense 3rd down predicted points added (PPA).
```

off\_cumulative\_total: character. Offense cumulative total predicted points added (PPA).

```
off_cumulative_passing: character. Offense cumulative total passing predicted points added (PPA).

off_cumulative_rushing: character. Offense cumulative total rushing predicted points added (PPA).

def_overall: character. Defense overall predicted points added (PPA).

def_passing: character. Defense passing predicted points added (PPA).

def_rushing: character. Defense rushing predicted points added (PPA).

def_first_down: character. Defense 1st down predicted points added (PPA).

def_second_down: character. Defense 2nd down predicted points added (PPA).

def_third_down: character. Defense 3rd down predicted points added (PPA).

def_cumulative_total: character. Defense cumulative total predicted points added (PPA).

def_cumulative_passing: character. Defense cumulative total passing predicted points added (PPA).

def_cumulative_rushing: character. Defense cumulative total rushing predicted points added (PPA).
```

#### See Also

(PPA).

```
Other CFBD Metrics: cfbd_metrics_fg_ep(), cfbd_metrics_ppa_games(), cfbd_metrics_ppa_players_games(), cfbd_metrics_ppa_players_season(), cfbd_metrics_ppa_predicted(), cfbd_metrics_wepa_players_kicking(), cfbd_metrics_wepa_players_passing(), cfbd_metrics_wepa_players_rushing(), cfbd_metrics_wepa_team_seascfbd_metrics_wp(), cfbd_metrics_wp_pregame()
```

## **Examples**

```
try(cfbd_metrics_ppa_teams(year = 2019, team = "TCU"))
```

cfbd\_metrics\_wepa\_players\_kicking

Get Points Added Above Replacement (PAAR) ratings for kickers

## **Description**

#### Get Points Added Above Replacement (PAAR) ratings for kickers

# Usage

```
cfbd_metrics_wepa_players_kicking(year = NULL, team = NULL, conference = NULL)
```

#### **Arguments**

year (*Integer* required): Year, 4 digit format (*YYYY*)

team (String optional): D-I Team

conference (String optional): Conference abbreviation - Select a valid FBS conference Con-

ference abbreviations P5: ACC, B12, B1G, SEC, PAC Conference abbreviations

G5 and FBS Independents: CUSA, MAC, MWC, Ind, SBC, AAC

# Value

cfbd\_metrics\_wepa\_players\_kicking() - A data frame with 7 variables:

```
col_name types
year integer
athlete_id character
athlete_name character
team character
conference character
paar numeric
attempts integer
```

## See Also

```
Other CFBD Metrics: cfbd_metrics_fg_ep(), cfbd_metrics_ppa_games(), cfbd_metrics_ppa_players_games(), cfbd_metrics_ppa_players_season(), cfbd_metrics_ppa_predicted(), cfbd_metrics_ppa_teams(), cfbd_metrics_wepa_players_passing(), cfbd_metrics_wepa_players_rushing(), cfbd_metrics_wepa_team_seascfbd_metrics_wp(), cfbd_metrics_wp_pregame()
```

## **Examples**

```
try(cfbd_metrics_wepa_players_kicking(year = 2019, team = "TCU"))
```

```
cfbd_metrics_wepa_players_passing
```

Get opponent-adjusted player passing statistics for predicted points added (PPA)

# Description

Get opponent-adjusted player passing statistics for predicted points added (PPA)

## Usage

```
cfbd_metrics_wepa_players_passing(
  year = NULL,
  team = NULL,
  conference = NULL,
  position = NULL
)
```

#### **Arguments**

year (*Integer* required): Year, 4 digit format (*YYYY*)

team (String optional): D-I Team

conference (String optional): Conference abbreviation - Select a valid FBS conference Con-

ference abbreviations P5: ACC, B12, B1G, SEC, PAC Conference abbreviations

G5 and FBS Independents: CUSA, MAC, MWC, Ind, SBC, AAC

position (*string* optional): Position abbreviation of the player you are searching for. Po-

sition Group - options include:

Offense: QB, RB, FB, TE, OL, G, OT, C, WR
Defense: DB, CB, S, LB, DE, DT, NT, DL

• Special Teams: K, P, LS, PK

#### Value

cfbd\_metrics\_wepa\_players\_passing() - A data frame with 8 variables:

col\_name types year integer character athlete\_id athlete\_name character position character team character conference character wepa numeric plays integer

## See Also

```
Other CFBD Metrics: cfbd_metrics_fg_ep(), cfbd_metrics_ppa_games(), cfbd_metrics_ppa_players_games(), cfbd_metrics_ppa_players_season(), cfbd_metrics_ppa_predicted(), cfbd_metrics_ppa_teams(), cfbd_metrics_wepa_players_kicking(), cfbd_metrics_wepa_players_rushing(), cfbd_metrics_wepa_team_seascfbd_metrics_wp(), cfbd_metrics_wp_pregame()
```

# **Examples**

```
try(cfbd_metrics_wepa_players_passing(year = 2019, team = "TCU"))
```

cfbd\_metrics\_wepa\_players\_rushing

Get opponent-adjusted player rushing statistics for predicted points added (PPA)

# **Description**

Get opponent-adjusted player rushing statistics for predicted points added (PPA)

## Usage

```
cfbd_metrics_wepa_players_rushing(
  year = NULL,
  team = NULL,
  conference = NULL,
  position = NULL
)
```

## **Arguments**

year (Integer required): Year, 4 digit format (YYYY)

team (String optional): D-I Team

conference (String optional): Conference abbreviation - Select a valid FBS conference Con-

ference abbreviations P5: ACC, B12, B1G, SEC, PAC Conference abbreviations

G5 and FBS Independents: CUSA, MAC, MWC, Ind, SBC, AAC

position (*string* optional): Position abbreviation of the player you are searching for. Po-

sition Group - options include:

Offense: QB, RB, FB, TE, OL, G, OT, C, WR
Defense: DB, CB, S, LB, DE, DT, NT, DL

• Special Teams: K, P, LS, PK

## Value

cfbd\_metrics\_wepa\_players\_rushing() - A data frame with 8 variables:

col name types integer year athlete\_id character athlete\_name character character position character team conference character wepa numeric plays integer

## See Also

```
Other CFBD Metrics: cfbd_metrics_fg_ep(), cfbd_metrics_ppa_games(), cfbd_metrics_ppa_players_games(), cfbd_metrics_ppa_players_season(), cfbd_metrics_ppa_predicted(), cfbd_metrics_ppa_teams(), cfbd_metrics_wepa_players_kicking(), cfbd_metrics_wepa_players_passing(), cfbd_metrics_wepa_team_seascfbd_metrics_wp(), cfbd_metrics_wp_pregame()
```

# **Examples**

```
try(cfbd_metrics_wepa_players_rushing(year = 2019, team = "TCU"))
```

```
cfbd_metrics_wepa_team_season
```

Get opponent-adjusted team season statistics for predicted points added (PPA)

## **Description**

Get opponent-adjusted team season statistics for predicted points added (PPA)

## Usage

```
cfbd_metrics_wepa_team_season(year = NULL, team = NULL, conference = NULL)
```

### **Arguments**

year (*Integer* required): Year, 4 digit format (*YYYY*)

team (String optional): D-I Team

conference (String optional): Conference abbreviation - Select a valid FBS conference Con-

ference abbreviations P5: ACC, B12, B1G, SEC, PAC Conference abbreviations

G5 and FBS Independents: CUSA, MAC, MWC, Ind, SBC, AAC

### Value

cfbd\_metrics\_wepa\_team\_season() - A data frame with 26 variables:

col\_name types year integer team\_id integer team character conference character explosiveness numeric explosiveness\_allowed numeric epa\_total numeric epa\_passing numeric epa\_rushing numeric

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epa_allowed_total	numeric
epa_allowed_passing	numeric
epa_allowed_rushing	numeric
success_rate_total	numeric
success_rate_standard_downs	numeric
success_rate_passing_downs	numeric
success_rate_allowed_total	numeric
success_rate_allowed_standard_downs	numeric
success_rate_allowed_passing_downs	numeric
rushing_line_yards	numeric
rushing_second_level_yards	numeric
rushing_open_field_yards	numeric
rushing_highlight_yards	numeric
rushing_allowed_line_yards	numeric
rushing_allowed_second_level_yards	numeric
rushing_allowed_open_field_yards	numeric
rushing_allowed_highlight_yards	numeric

## See Also

```
Other CFBD Metrics: cfbd_metrics_fg_ep(), cfbd_metrics_ppa_games(), cfbd_metrics_ppa_players_games(), cfbd_metrics_ppa_players_season(), cfbd_metrics_ppa_predicted(), cfbd_metrics_ppa_teams(), cfbd_metrics_wepa_players_kicking(), cfbd_metrics_wepa_players_passing(), cfbd_metrics_wepa_players_rcfbd_metrics_wp(), cfbd_metrics_wp_pregame()
```

# **Examples**

```
try(cfbd_metrics_wepa_team_season(year = 2019, team = "TCU"))
```

cfbd\_metrics\_wp

Get win probability chart data from API

# **Description**

## Get win probability chart data from API

# Usage

```
cfbd_metrics_wp(game_id)
```

# **Arguments**

```
game_id (Integer required): Game ID filter for querying a single game Can be found using the cfbd_game_info() function
```

#### Value

```
cfbd_metrics_wp() - A data frame with 16 variables:
play_id: character. Play referencing id.
play_text: character. A text description of the play.
home_id: integer. Home team referencing id.
home: character. Home team name.
away_id: integer. Away team referencing id.
away: character. Away team name.
spread: character. Betting lines provider spread.
home_ball: logical. Home team has the ball.
home_score: integer. Home team score.
away_score: integer. Away team score.
down: integer. Down of the play.
distance: integer. Distance to the sticks (to 1st down marker of goal-line in goal-to-go situations).
home_win_prob: character. Home team win probability.
away_win_prob: double. Away team win probability.
play_number: integer. Game play number.
yard_line: integer. Yard line of the play (0-100 yards).
```

# See Also

```
Other CFBD Metrics: cfbd_metrics_fg_ep(), cfbd_metrics_ppa_games(), cfbd_metrics_ppa_players_games(),
cfbd_metrics_ppa_players_season(), cfbd_metrics_ppa_predicted(), cfbd_metrics_ppa_teams(),
cfbd_metrics_wepa_players_kicking(),cfbd_metrics_wepa_players_passing(),cfbd_metrics_wepa_players_r
cfbd_metrics_wepa_team_season(), cfbd_metrics_wp_pregame()
```

## **Examples**

```
try(cfbd_metrics_wp(game_id = 401012356))
```

cfbd\_metrics\_wp\_pregame

Get pre-game win probability data from API

# **Description**

Get pre-game win probability data from API

## Usage

```
cfbd_metrics_wp_pregame(
  year = NULL,
  week = NULL,
  team = NULL,
  season_type = "both"
)
```

## **Arguments**

year (*Integer* optional): Year, 4 digit format (*YYYY*)

week (*Integer* optional): Week - values from 1-15, 1-14 for seasons pre-playoff, i.e.

2013 or earlier

team (String optional): D-I Team

season\_type (String default both): Season type - regular, postseason, both, allstar, spring\_regular,

spring\_postseason

cfbd\_metrics\_wp\_pregame() - A data frame with 9 variables:

#### Value

```
season: integer. Season of game.

season_type: character. Season type of game.

week: integer. Game week of the season.

game_id: integer. Referencing game id.

home_team: character. Home team name.

away_team: character. Away team name.

spread: integer. Betting line provider spread.

home_win_prob: double. Home win probability - pre-game prediction.

away_win_prob: double. Away win probability - pre-game prediction.
```

#### See Also

```
Other CFBD Metrics: cfbd_metrics_fg_ep(), cfbd_metrics_ppa_games(), cfbd_metrics_ppa_players_games(), cfbd_metrics_ppa_players_season(), cfbd_metrics_ppa_predicted(), cfbd_metrics_ppa_teams(), cfbd_metrics_wepa_players_kicking(), cfbd_metrics_wepa_players_passing(), cfbd_metrics_wepa_players_rcfbd_metrics_wepa_team_season(), cfbd_metrics_wp()
```

# **Examples**

```
try(cfbd_metrics_wp_pregame(year = 2019, week = 9, team = "Texas A&M"))
```

cfbd\_pbp\_data

Get college football play by play data with cfbfastR expected points/win probability added

# Description

Extract college football (D-I) play by play Data - for plays

#### **Usage**

```
cfbd_pbp_data(
  year,
  season_type = "regular",
  week = 1,
  team = NULL,
  play_type = NULL,
  epa_wpa = FALSE,
  ...
)
```

## **Arguments**

year Select year, (example: 2018)

season\_type (String default regular): Season type - regular, postseason, both, allstar, spring\_regular,

spring\_postseason

week Select week, this is optional (also numeric)

team Select team name (example: Texas, Texas A&M, Clemson)
play\_type Select play type (example: see the cfbd\_play\_type\_df)

epa\_wpa Logical parameter (TRUE/FALSE) to return the Expected Points Added/Win

Probability Added variables

... Additional arguments passed to an underlying function.

# **Details**

```
# Get play by play data for 2025 regular season week 1
cfbd_pbp_data(year = 2025, week = 1, season_type = 'regular', epa_wpa = TRUE)
```

#### Value

A data frame with 368 variables:

col\_nametypesseasonnumericwknumericid\_playcharacter

game\_id integer game\_play\_number numeric half\_play\_number numeric drive\_play\_number numeric pos\_team character def\_pos\_team character pos\_team\_score integer def\_pos\_team\_score integer factor period integer clock\_minutes integer clock\_seconds integer character play\_type play\_text character down numeric distance numeric yards\_to\_goal numeric yards\_gained numeric **EPA** numeric ep\_before numeric ep\_after numeric wpa numeric wp\_before numeric wp\_after numeric def\_wp\_before numeric def\_wp\_after numeric penalty\_detail character yds\_penalty numeric penalty\_1st\_conv logical new\_series numeric firstD\_by\_kickoff numeric firstD\_by\_poss numeric firstD\_by\_penalty numeric firstD\_by\_yards numeric def\_EPA numeric home\_EPA numeric away EPA numeric home\_EPA\_rush numeric away\_EPA\_rush numeric home\_EPA\_pass numeric away\_EPA\_pass numeric total\_home\_EPA numeric total\_away\_EPA numeric total\_home\_EPA\_rush numeric total\_away\_EPA\_rush numeric total\_home\_EPA\_pass numeric total\_away\_EPA\_pass numeric net\_home\_EPA numeric

net\_away\_EPA numeric net\_home\_EPA\_rush numeric net\_away\_EPA\_rush numeric net\_home\_EPA\_pass numeric net\_away\_EPA\_pass numeric success numeric epa\_success numeric rz\_play numeric scoring\_opp numeric middle\_8 logical stuffed\_run numeric change\_of\_pos\_team numeric downs\_turnover numeric turnover numeric pos\_score\_diff\_start numeric pos\_score\_pts numeric log\_ydstogo numeric ExpScoreDiff numeric ExpScoreDiff\_Time\_Ratio numeric half clock minutes numeric TimeSecsRem numeric adj\_TimeSecsRem numeric Goal\_To\_Go logical Under\_two logical home character away character home\_wp\_before numeric away\_wp\_before numeric home\_wp\_after numeric away\_wp\_after numeric end\_of\_half numeric pos\_team\_receives\_2H\_kickoff numeric lead\_pos\_team character lead\_play\_type character lag\_pos\_team character lag\_play\_type character orig\_play\_type character Under\_three logical down end factor distance\_end numeric log\_ydstogo\_end numeric yards\_to\_goal\_end numeric TimeSecsRem\_end numeric Goal\_To\_Go\_end logical Under\_two\_end logical offense\_score\_play numeric defense\_score\_play numeric ppa numeric

yard\_line integer scoring logical pos\_team\_timeouts\_rem\_before numeric def\_pos\_team\_timeouts\_rem\_before numeric pos\_team\_timeouts integer def\_pos\_team\_timeouts integer pos\_score\_diff integer pos\_score\_diff\_start\_end numeric offense\_play character defense\_play character offense\_receives\_2H\_kickoff numeric change\_of\_poss numeric numeric score\_pts score\_diff\_start numeric score\_diff integer offense\_score integer defense\_score integer offense\_conference character defense\_conference character off timeout called numeric def\_timeout\_called numeric offense timeouts integer defense\_timeouts integer off\_timeouts\_rem\_before numeric def\_timeouts\_rem\_before numeric rusher player name character yds\_rushed numeric passer\_player\_name character receiver\_player\_name character yds\_receiving numeric yds\_sacked numeric sack\_players character sack\_player\_name character sack\_player\_name2 character pass\_breakup\_player\_name character interception\_player\_name character yds\_int\_return numeric fumble\_player\_name character fumble\_forced\_player\_name character fumble\_recovered\_player\_name character yds\_fumble\_return numeric character punter\_player\_name yds\_punted numeric punt\_returner\_player\_name character yds\_punt\_return numeric yds\_punt\_gained numeric punt\_block\_player\_name character punt\_block\_return\_player\_name character

fg\_kicker\_player\_name character yds\_fg numeric fg\_block\_player\_name character fg\_return\_player\_name character kickoff\_player\_name character yds\_kickoff numeric kickoff\_returner\_player\_name character yds\_kickoff\_return numeric new id numeric orig\_drive\_number integer drive\_number integer drive\_result\_detailed character new\_drive\_pts numeric drive\_id numeric character drive\_result drive\_start\_yards\_to\_goal numeric drive\_end\_yards\_to\_goal integer drive\_yards integer drive\_scoring numeric drive\_pts numeric drive\_start\_period integer drive\_end\_period integer drive\_time\_minutes\_start integer drive\_time\_seconds\_start integer drive\_time\_minutes\_end integer drive time seconds end integer drive\_time\_minutes\_elapsed logical drive\_time\_seconds\_elapsed logical drive\_numbers numeric number\_of\_drives numeric pts\_scored numeric drive\_result\_detailed\_flag character drive\_result2 character drive\_num numeric lag\_drive\_result\_detailed character lead\_drive\_result\_detailed character lag\_new\_drive\_pts numeric id\_drive character rush numeric numeric rush\_td pass numeric numeric pass\_td completion numeric pass\_attempt numeric target numeric sack\_vec numeric sack numeric int numeric

int\_td numeric turnover\_vec numeric turnover\_vec\_lag numeric turnover\_indicator numeric kickoff\_play numeric receives\_2H\_kickoff numeric missing\_yard\_flag logical scoring\_play numeric td\_play numeric touchdown numeric safety numeric fumble\_vec numeric kickoff\_tb numeric kickoff\_onside numeric kickoff\_oob numeric kickoff\_fair\_catch numeric kickoff\_downed numeric kickoff\_safety numeric kick\_play numeric punt numeric punt\_play numeric punt\_tb numeric punt\_oob numeric punt\_fair\_catch numeric punt\_downed numeric punt\_safety numeric punt\_blocked numeric penalty\_safety numeric fg\_inds numeric fg\_made logical fg\_make\_prob numeric No\_Score\_before numeric FG\_before numeric Opp\_FG\_before numeric Opp\_Safety\_before numeric Opp\_TD\_before numeric Safety\_before numeric TD\_before numeric No\_Score\_after numeric FG\_after numeric Opp\_FG\_after numeric Opp\_Safety\_after numeric Opp\_TD\_after numeric Safety\_after numeric TD\_after numeric penalty\_flag logical penalty\_declined logical penalty\_no\_play logical

penalty\_offset logical penalty\_text logical penalty\_play\_text character lead\_wp\_before2 numeric wpa\_half\_end numeric wpa\_base numeric wpa\_base\_nxt numeric wpa\_change numeric wpa\_change\_nxt numeric wpa\_base\_ind numeric wpa\_base\_nxt\_ind numeric wpa\_change\_ind numeric wpa\_change\_nxt\_ind numeric lead\_wp\_before numeric lead\_pos\_team2 character row integer drive\_event\_number numeric lag\_play\_type2 character lag\_play\_type3 character lag\_play\_text character lag\_play\_text2 character lead\_play\_text character lag\_first\_by\_penalty numeric lag\_first\_by\_penalty2 numeric lag\_first\_by\_yards numeric lag\_first\_by\_yards2 numeric first\_by\_penalty numeric first\_by\_yards numeric play\_after\_turnover numeric lag\_change\_of\_poss numeric lag\_change\_of\_pos\_team numeric lag\_change\_of\_pos\_team2 numeric lag\_kickoff\_play numeric lag\_punt numeric lag\_punt2 numeric lag\_scoring\_play numeric lag turnover vec numeric lag\_downs\_turnover numeric lag\_defense\_score\_play numeric lag\_score\_diff numeric lag\_offense\_play character character lead\_offense\_play lead\_offense\_play2 character lag\_pos\_score\_diff numeric lag\_off\_timeouts numeric lag\_def\_timeouts numeric lag\_TimeSecsRem2 numeric lag\_TimeSecsRem numeric

lead\_TimeSecsRem numeric lead\_TimeSecsRem2 numeric lag\_yards\_to\_goal2 integer lag\_yards\_to\_goal integer lead\_yards\_to\_goal numeric lead\_yards\_to\_goal2 integer lag\_down2 integer lag\_down integer lead\_down numeric lead\_down2 numeric lead distance numeric lead\_distance2 integer lead\_play\_type2 character lead\_play\_type3 character lag\_ep\_before3 numeric lag\_ep\_before2 numeric lag\_ep\_before numeric lead\_ep\_before numeric lead\_ep\_before2 numeric lag\_ep\_after numeric lag\_ep\_after2 numeric lag\_ep\_after3 numeric lead\_ep\_after numeric lead\_ep\_after2 numeric play number integer wallclock character provider character spread numeric formatted\_spread character over\_under numeric drive\_is\_home\_offense logical drive\_start\_offense\_score integer drive\_start\_defense\_score integer drive\_end\_offense\_score integer drive\_end\_defense\_score integer play numeric event numeric game\_event\_number numeric game\_row\_number integer half\_play numeric half\_event numeric half\_event\_number numeric half\_row\_number integer lag\_distance3 integer lag distance2 integer lag\_distance integer lag\_yards\_gained3 integer lag\_yards\_gained2 integer

cfbd\_play

lag_yards_gained	integer
lead_yards_gained	integer
lead_yards_gained2	integer
lag_play_text3	character
lead_play_text2	character
lead_play_text3	character
pos_unit	character
def_pos_unit	character
lag_change_of_poss2	numeric
lag_change_of_poss3	numeric
lag_change_of_pos_team3	numeric
lag_kickoff_play2	numeric
lag_kickoff_play3	numeric
lag_punt3	numeric
lag_scoring_play2	numeric
lag_scoring_play3	numeric
lag_turnover_vec2	numeric
lag_turnover_vec3	numeric
lag_downs_turnover2	numeric
lag_downs_turnover3	numeric
drive_play	numeric
drive_event	numeric
lag_first_by_penalty3	numeric
lag_first_by_yards3	numeric

# See Also

```
Other CFBD PBP: cfbd_live_plays(), cfbd_play_stats_player(), cfbd_play_stats_types(),
cfbd_play_types(), cfbd_plays()
```

cfbd\_play

# **CFBD Plays Endpoint Overview**

# Description

```
College football plays data
```

```
cfbd_plays(): CFBD's college football play-by-play.
cfbd_play_stats_player(): Gets player info associated by play.
cfbd_play_stats_types(): Gets CFBD play stat types.
cfbd_play_types(): Gets CFBD play types.
```

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# **Details**

# Pull first 3 weeks of 2020 season using cfbd\_plays():

```
year_vector <- 2020</pre>
 week_vector <- 1:3</pre>
 weekly_year_df <- expand.grid(year = year_vector, week = week_vector)</pre>
 tictoc::tic()
 year_split <- split(weekly_year_df, weekly_year_df$year)</pre>
 for (i in 1:length(year_split)) {
   i <- 1
   progressr::with_progress({
      year_split[[i]] <- year_split[[i]] %>%
         dplyr::mutate(
            pbp = purrr::map2(
                 .x = year,
                 .y = week,
                 cfbd_plays,
                 season_type = "both"
         )
     Sys.sleep(1)
   })
 }
 tictoc::toc()
 year_split <- lapply(year_split, function(x) {</pre>
     x %>% tidyr::unnest(pbp, names_repair = "minimal")
 })
 all_years <- dplyr::bind_rows(year_split)</pre>
 glimpse(all_years)
Gets player info associated by play:
cfbd_play_stats_player(game_id = 401110722)
Gets CFBD play stat types:
cfbd_play_stats_types()
Gets CFBD play types:
cfbd_play_types()
```

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cfbd\_players

# **CFBD Players Endpoint Overview**

## **Description**

```
cfbd_player_info(): Player information search.
cfbd_player_returning(): Player returning production.
cfbd_player_usage(): Player usage.
```

#### **Details**

## Player information lookup:

```
cfbd_player_info(search_term = "James", position = "DB", team = "Florida State", year = 2017)
 cfbd_player_info(search_term = "Lawrence", team = "Clemson")
Get player returning production:
 cfbd_player_returning(year = 2019, team = "Florida State")
Get player usage metrics:
 cfbd_player_usage(year = 2019, position = "WR", team = "Florida State")
```

cfbd\_player\_info

# Player information lookup

## **Description**

## Player information lookup

#### Usage

```
cfbd_player_info(search_term, position = NULL, team = NULL, year = NULL)
```

### **Arguments**

team

search\_term (String required): Search term for the player you are trying to look up position (string optional): Position of the player you are searching for. Position Group options include: • Offense: QB, RB, FB, TE, OL, G, OT, C, WR • Defense: DB, CB, S, LB, DE, DT, NT, DL • Special Teams: K, P, LS, PK

(String optional): Team - Select a valid team, D1 football (Integer optional): Year, 4 digit format (YYYY). If left NULL, API default will year only provide results for most recent year of final rosters: 2020

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# Value

```
cfbd_player_info() - A data frame with 12 variables:
    athlete_id:character. Unique player identifier athlete_id.
    team:character. Team of the player.
    name:character. Player name.
    first_name:character. Player first name.
    last_name:character. Player last name.
    weight:integer. Player weight.
    height:integer. Player height.
    jersey:integer. Player jersey number.
    position:character. Player position.
    home_town:character. Player home town.
    team_color:character. Player team color.
    team_color_secondary:character. Player team secondary color.
See Also
    Other CFBD Players: cfbd_player_returning(), cfbd_player_usage()
Examples
     try(cfbd_player_info(search_term = "James", position = "DB", team = "Florida State", year = 2017))
      try(cfbd_player_info(search_term = "Lawrence", team = "Clemson"))
  cfbd_player_returning Get player returning production
```

# Description

Get player returning production

# Usage

```
cfbd_player_returning(
  year = most_recent_cfb_season(),
  team = NULL,
  conference = NULL
)
```

#### **Arguments**

year (*Integer* required, default most recent season): Year, 4 digit format (*YYYY*).

team (String optional): Team - Select a valid team, D1 football

conference (String optional): Conference abbreviation - Select a valid FBS conference Con-

ference abbreviations P5: ACC, B12, B1G, SEC, PAC Conference abbreviations

G5 and FBS Independents: CUSA, MAC, MWC, Ind, SBC, AAC

### Value

```
cfbd_player_returning() - A data frame with 15 variables:
season:integer. Returning player season.
team:character. Team name.
conference:character. Conference of team.
total_ppa:double. Total predicted points added returning.
total_passing_ppa:double. Total passing predicted points added returning.
total_receiving_ppa:double. Total receiving predicted points added returning.
total_rushing_ppa:double. Total rushing predicted points added returning.
percent_ppa:double. Percentage of prior year's predicted points added returning.
percent_passing_ppa:double. Percentage of prior year's passing predicted points added return-
    ing.
percent_receiving_ppa:double. Percentage of prior year's receiving predicted points added re-
percent_rushing_ppa:double. Percentage of prior year's rushing predicted points added return-
    ing.
usage:double. .
passing_usage:double. .
receiving_usage:double. .
rushing_usage:double. .
```

## See Also

```
Other CFBD Players: cfbd_player_info(), cfbd_player_usage()
```

## **Examples**

```
try(cfbd_player_returning(year = 2019, team = "Florida State"))
```

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cfbd\_player\_usage

Get player usage metrics

# **Description**

## Get player usage metrics

## Usage

```
cfbd_player_usage(
  year = most_recent_cfb_season(),
  team = NULL,
  conference = NULL,
  position = NULL,
  athlete_id = NULL,
  excl_garbage_time = FALSE
)
```

# Arguments

(Integer required, default most recent season): Year, 4 digit format (YYYY). year (String optional): Team - Select a valid team, D1 football team

conference (String optional): Conference abbreviation - Select a valid FBS conference Con-

ference abbreviations P5: ACC, B12, B1G, SEC, PAC Conference abbreviations

G5 and FBS Independents: CUSA, MAC, MWC, Ind, SBC, AAC

position (string optional): Position of the player you are searching for. Position Group -

options include:

• Offense: QB, RB, FB, TE, OL, G, OT, C, WR

• Defense: DB, CB, S, LB, DE, DT, NT, DL

• Special Teams: K, P, LS, PK

athlete\_id

(Integer optional): Athlete ID filter for querying a single athlete Can be found using the cfbd\_player\_info() function.

excl\_garbage\_time

(Logical default FALSE): Select whether to exclude Garbage Time (TRUE/FALSE)

# Value

```
cfbd_player_usage() - A data frame with 14 variables:
season: integer. Player usage season.
athlete_id: character. Referencing athlete id.
name: character. Athlete name.
position: character. Athlete position.
team: character. Team name.
```

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```
conference: character. Conference of team.

usg_overall: double. Player usage of overall offense.

usg_pass: double. Player passing usage percentage.

usg_rush: double. Player rushing usage percentage.

usg_1st_down: double. Player first down usage percentage.

usg_2nd_down: double. Player second down usage percentage.

usg_3rd_down: double. Player third down usage percentage.

usg_standard_downs: double. Player standard down usage percentage.

usg_passing_downs: double. Player passing down usage percentage.
```

## See Also

```
Other CFBD Players: cfbd_player_info(), cfbd_player_returning()
```

# **Examples**

```
try(cfbd_player_usage(year = 2019, position = "WR", team = "Florida State"))
```

cfbd\_plays

Get college football play-by-play data.

## **Description**

Get college football play-by-play data.

## Usage

```
cfbd_plays(
  year = 2020,
  season_type = "regular",
  week = 1,
  team = NULL,
  offense = NULL,
  defense = NULL,
  conference = NULL,
  offense_conference = NULL,
  defense_conference = NULL,
  division = "fbs"
)
```

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#### **Arguments**

year Select year, (example: 2018)

season\_type (String default regular): Season type - regular, postseason, both, allstar, spring\_regular,

spring\_postseason

week Select week, this is optional (also numeric)

team Select team name (example: Texas, Texas A&M, Clemson)
offense Select offense name (example: Texas, Texas A&M, Clemson)
defense Select defense name (example: Texas, Texas A&M, Clemson)

conference Select conference name (example: ACC, B1G, B12, SEC, PAC, MAC, MWC,

CUSA, Ind, SBC, AAC, Western, MVIAA, SWC, PCC, Big 6, etc.)

offense\_conference

Select conference name (example: ACC, B1G, B12, SEC, PAC, MAC, MWC,

CUSA, Ind, SBC, AAC, Western, MVIAA, SWC, PCC, Big 6, etc.)

defense\_conference

Select conference name (example: ACC, B1G, B12, SEC, PAC, MAC, MWC,

CUSA, Ind, SBC, AAC, Western, MVIAA, SWC, PCC, Big 6, etc.)

play\_type Select play type (example: see the cfbd\_play\_type\_df)

division (String optional): Division abbreviation - Select a valid division: fbs/fcs/ii/iii

#### Value

cfbd\_plays() - A data frame with 29 columns:

play\_id: **character.** Referencing play id. offense: **character.** Offense on the field.

offense\_conference: character. Conference of the offense on the field.

defense: character. Defense on the field.

defense\_conference: character. Conference of the defense on the field.

home: character. Home team. away: character. Away team.

offense\_score: **integer.** Offense's post-play score. defense\_score: **integer.** Defense's post-play score.

game\_id: integer. Referencing game id.
drive\_id: character. Referencing drive id.

drive\_number: **integer.** Drive number in the game. play\_number: **integer.** Play number in the game.

period: integer. Game period (quarter).

offense\_timeouts: **integer.** Timeouts for the offense at the end of the play. defense\_timeouts: **integer.** Timeouts for the defense at the end of the play.

yard\_line: integer. Yard line (~0-50) of the play.

```
yards_to_goal: integer. Yards to the goal line (~0-100).

down: integer. Down of the play.

distance: integer. Distance to the sticks, i.e. 1st down or goal-line in goal-to-go situations.

scoring: logical. Scoring play flag.

yards_gained: integer. Yards net gained by the offense on the play.

play_type: character. Categorical label of the type of the play.

play_text: character. A text description of the play.

ppa: character. Predicted Points Added (calculated by CFBD).

clock_minutes: integer. Minutes left on the clock.

clock_seconds: integer. Seconds left on the clock.
```

#### See Also

```
Other CFBD PBP: cfbd_live_plays(), cfbd_pbp_data(), cfbd_play_stats_player(), cfbd_play_stats_types(), cfbd_play_types()
```

# **Examples**

```
try(cfbd_plays(year = 2021, week = 1))
```

```
cfbd_play_stats_player
```

Gets player info associated by play

# **Description**

Gets player info associated by play

# Usage

```
cfbd_play_stats_player(
  year = NULL,
  week = NULL,
  team = NULL,
  game_id = NULL,
  athlete_id = NULL,
  stat_type_id = NULL,
  season_type = "regular"
)
```

#### **Arguments**

(*Integer* optional): Year, 4 digit format (*YYYY*) year (Integer optional): Week - values from 1-15, 1-14 for seasons pre-playoff, i.e. week 2013 or earlier team (String optional): D-I Team (Integer optional): Game ID filter for querying a single game Can be found game\_id using the cfbd\_game\_info() function athlete id (Integer optional): Athlete ID filter for querying a single athlete Can be found using the cfbd\_player\_info() function. (Integer optional): Stat Type ID filter for querying a single stat type Can be stat\_type\_id found using the cfbd\_play\_stats\_types() function (String default regular): Season type - regular, postseason, both, allstar, spring\_regular, season\_type spring\_postseason

#### Value

```
cfbd_play_stats_player() - A data frame with 54 variables:
play_id: character. Referencing play id.
game_id: integer. Referencing game id.
season: integer. Season of the play.
week: integer. Week of the play.
opponent: character. Opponent of the offense on the play.
team_score: integer. Offense team score.
opponent_score: integer. Defense team score.
drive_id: character. Referencing drive id.
period: integer. Game period (quarter) of the play.
yards_to_goal: integer. Yards to the goal line (~0-100).
down: integer. Down of the play.
distance: integer. Distance to the sticks, i.e. 1st down or goal-line in goal-to-go situations.
reception_player_id: character. Pass receiver player reference id.
reception_player: character. Pass receiver player name.
reception_yds: integer. Reception yards.
completion_player_id: character. Passing player reference id.
completion_player: character. Passing player name.
completion_yds: integer. Passing yards.
rush_player_id: character. Rushing player reference id.
rush_player: character. Rushing player name.
rush_yds: integer. Rushing yards.
interception_player_id: character. Intercepting player reference id.
```

interception\_player: character. Intercepting player name. interception\_stat: integer. Intercepting stat. interception\_thrown\_player\_id: character. Interception passing player reference id. interception\_thrown\_player: **character.** Interception passing player name. interception\_thrown\_stat: integer. Interception thrown stat. touchdown\_player\_id: character. Touchdown scoring player reference id. touchdown\_player: **character.** Touchdown scoring player name. touchdown\_stat: integer. Touchdown scoring stat. incompletion\_player\_id: character. Incomplete receiver player reference id. incompletion\_player: character. Incomplete receiver player name. incompletion\_stat: integer. Incomplete stat. target\_player\_id: character. Targeted receiver player reference id. target\_player: character. Targeted receiver player name. target\_stat: integer. Target stat. fumble\_recovered\_player\_id: logical. Fumble recovering player reference id. fumble\_recovered\_player: logical. Fumble recovering player name. fumble\_recovered\_stat: logical. Fumble recovered stat. fumble\_forced\_player\_id: logical. Fumble forcing player reference id. fumble\_forced\_player: logical. Fumble forcing player name. fumble\_forced\_stat: logical. Fumble forced stat. fumble\_player\_id: logical. Fumbling player reference id. fumble\_player: logical. Fumbling player name. fumble\_stat: logical. Fumble stat. sack\_player\_id: character. Sacking player(s) reference id. sack\_player: character. Sacking player(s) name. sack\_stat: integer. Sack stat. sack\_taken\_player\_id: character. Sack taking player reference id. sack\_taken\_player: character. Sack taking player name. sack\_taken\_stat: integer. Sack taken stat. pass\_breakup\_player\_id: logical. Pass breakup player reference id. pass\_breakup\_player: logical. Pass breakup player name. pass\_breakup\_stat: logical. Pass breakup (PBU) stat. field\_goal\_attempt\_player\_id: character. Field goal attempting player reference id. field\_goal\_attempt\_player: character. Field goal attempting player name. field\_goal\_attempt\_stat: integer. Field goal attempt stat. field\_goal\_made\_player\_id: character. Field goal making player reference id. field\_goal\_made\_player: character. Field goal making player name.

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```
field_goal_made_stat: integer. Field goal made stat.

field_goal_missed_player_id: character. Field goal missing player reference id.

field_goal_missed_player: character. Field goal missing player name.

field_goal_missed_stat: integer. Field goal missed stat.

field_goal_blocked_player_id: character. Field goal blocked player reference id.

field_goal_blocked_player: character. Field goal blocked player name.

field_goal_blocked_stat: integer. Field goal blocked stat.
```

## See Also

```
Other CFBD PBP: cfbd_live_plays(), cfbd_pbp_data(), cfbd_play_stats_types(), cfbd_play_types(), cfbd_plays()
```

# Examples

```
try(cfbd_play_stats_player(game_id = 401628414))
try(cfbd_play_stats_player(year = 2025, week = 1))
```

cfbd\_play\_stats\_types Get college football mapping for play stats types

# Description

Get college football mapping for play stats types

## Usage

```
cfbd_play_stats_types()
```

### Value

```
cfbd_play_stats_types() - A data frame with 25 rows and 2 variables: play_stat_type_id: integer Referencing play stat type ID. name: character Type of play stats.
```

# See Also

```
Other CFBD PBP: cfbd_live_plays(), cfbd_pbp_data(), cfbd_play_stats_player(), cfbd_play_types(), cfbd_plays()
```

## **Examples**

```
try(cfbd_play_stats_types())
```

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cfbd\_play\_types

Get college football mapping for play types

## **Description**

Get college football mapping for play types

## Usage

```
cfbd_play_types()
```

#### Value

```
cfbd_play_types() - A data frame with 48 rows and 3 variables:
play_type_id: integer Referencing play type id.
text: character play type description.
abbreviation: character play type abbreviation used for function call
```

## See Also

```
Other CFBD PBP: cfbd_live_plays(), cfbd_pbp_data(), cfbd_play_stats_player(), cfbd_play_stats_types(), cfbd_plays()
```

# **Examples**

```
try(cfbd_play_types())
```

cfbd\_rankings

Get historical Coaches and AP poll data

# Description

# Get historical Coaches and AP poll data

# Usage

```
cfbd_rankings(year, week = NULL, season_type = "both")
```

# **Arguments**

year (*Integer* required): Year, 4 digit format (*YYYY*)

week (Integer optional): Week, values from 1-15, 1-14 for seasons pre-playoff (i.e.

2013 or earlier)

season\_type (String default both): Season type - regular, postseason, both, allstar, spring\_regular,

spring\_postseason

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# Value

cfbd\_rankings() - A data frame with 9 variables:

col\_name types season integer character season\_type week integer character poll rank integer school character conference character first\_place\_votes integer points integer

#### See Also

```
Other CFBD Ratings and Rankings: cfbd_ratings_elo(), cfbd_ratings_fpi(), cfbd_ratings_sp(), cfbd_ratings_sp_conference(), cfbd_ratings_srs()
```

# **Examples**

```
try(cfbd_rankings(year = 2019, week = 12))
try(cfbd_rankings(year = 2018, week = 14))
try(cfbd_rankings(year = 2013, season_type = "postseason"))
```

cfbd\_ratings

# **CFBD Ratings and Rankings Endpoints Overview**

# Description

```
cfbd_rankings(): Gets Historical CFB poll rankings at a specific week.

cfbd_ratings_sp(): Get SP historical rating data.

cfbd_ratings_sp_conference(): Get SP conference-level historical rating data.

cfbd_ratings_srs(): Get SRS historical rating data.

cfbd_ratings_elo(): Get Elo historical rating data.

cfbd_ratings_fpi(): Get FPI historical rating data.
```

# Get historical Coaches and AP poll data:

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```
cfbd_rankings(year = 2019, week = 12)
cfbd_rankings(year = 2018, week = 14)
cfbd_rankings(year = 2013, season_type = "postseason")
```

# Get SP historical rating data:

At least one of year or team must be specified for the function to run

```
cfbd_ratings_sp(year = 2018)
cfbd_ratings_sp(team = "Texas A&M")
cfbd_ratings_sp(year = 2019, team = "Texas")
```

# Get conference level SP historical rating data:

```
cfbd_ratings_sp_conference(year = 2019)
cfbd_ratings_sp_conference(year = 2012, conference = "SEC")
cfbd_ratings_sp_conference(year = 2016, conference = "ACC")
```

#### Get SRS historical rating data:

At least one of year or team must be specified for the function to run

```
cfbd_ratings_srs(year = 2019, team = "Texas")
cfbd_ratings_srs(year = 2018, conference = "SEC")
```

# Get Elo historical rating data:

Acquire the CFBD calculated elo ratings data by team, year, week, and conference

```
cfbd_ratings_elo(year = 2019, team = "Texas")
cfbd_ratings_elo(year = 2018, conference = "SEC")
```

# Get FPI historical rating data:

Acquire the ESPN FPI ratings data by team, year, and conference

```
cfbd_ratings_fpi(year = 2019, team = "Texas")
cfbd_ratings_fpi(year = 2018, conference = "SEC")
```

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cfbd\_ratings\_elo

Get Elo historical rating data

#### **Description**

Acquire the CFBD calculated elo ratings data by team, year, week, and conference

# Usage

```
cfbd_ratings_elo(
  year = NULL,
  week = NULL,
  season_type = "both",
  team = NULL,
  conference = NULL
)
```

# **Arguments**

year (*Integer* optional): Year, 4 digit format (*YYYY*) week (*Integer* optional): Maximum Week of ratings.

season\_type (String default both): Season type - regular, postseason, both, allstar, spring\_regular,

 $spring\_postseason$ 

team (String optional): D-I Team

conference (String optional): Conference abbreviation - Elo information by conference

Conference abbreviations P5: ACC, B12, B1G, SEC, PAC Conference abbreviations G5 and FBS Independents: CUSA, MAC, MWC, Ind, SBC, AAC

# Value

cfbd\_ratings\_elo() - A data frame with 4 variables:

col\_name types year integer team character conference character elo numeric

#### See Also

```
Other CFBD Ratings and Rankings: cfbd_rankings(), cfbd_ratings_fpi(), cfbd_ratings_sp(), cfbd_ratings_sp_conference(), cfbd_ratings_srs()
```

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### **Examples**

```
try(cfbd_ratings_elo(year = 2019, team = "Texas"))
try(cfbd_ratings_elo(year = 2018, conference = "SEC"))
```

cfbd\_ratings\_fpi

Get Football Power Index (FPI) historical rating data

#### **Description**

Acquire the ESPN calculated FPI ratings data by team, year, and conference

#### Usage

```
cfbd_ratings_fpi(year = NULL, team = NULL, conference = NULL)
```

# **Arguments**

year (Integer optional): Year, 4 digit format (YYYY). Required if team not provided

team (String optional): D-I Team. Required if year not provided

conference (String optional): Conference name - select a valid FBS conference Conference

names P5: ACC, Big 12, Big Ten, SEC, Pac-12 Conference names G5 and FBS Independents: Conference USA, Mid-American, Mountain West, FBS Indepen-

dents, American Athletic

#### Value

cfbd\_ratings\_fpi() - A data frame with 14 variables:

col\_name types year integer character team conference character numeric fpi resume\_ranks\_strength\_of\_record integer resume\_ranks\_fpi integer resume\_ranks\_average\_win\_probability integer resume\_ranks\_strength\_of\_schedule integer resume\_ranks\_remaining\_strength\_of\_schedule integer resume\_ranks\_game\_control integer efficiencies overall numeric efficiencies\_offense numeric efficiencies\_defense numeric efficiencies\_special\_teams numeric

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#### See Also

```
Other CFBD Ratings and Rankings: cfbd_rankings(), cfbd_ratings_elo(), cfbd_ratings_sp(), cfbd_ratings_sp_conference(), cfbd_ratings_srs()
```

# **Examples**

```
try(cfbd_ratings_fpi(year = 2019, team = "Texas"))
try(cfbd_ratings_fpi(year = 2018, conference = "SEC"))
```

cfbd\_ratings\_sp

Get SP historical rating data

# **Description**

At least one of year or team must be specified for the function to run

#### **Usage**

```
cfbd_ratings_sp(year = NULL, team = NULL)
```

# **Arguments**

year (*Integer* optional): Year, 4 digit format (*YYYY*). Required if team not provided

team (String optional): D-I Team. Required if year not provided

#### Value

cfbd\_ratings\_sp() - A data frame with 26 variables:

col\_name types year integer character team conference character rating numeric ranking integer second\_order\_wins numeric numeric sos offense\_ranking integer offense\_rating numeric offense\_success numeric offense\_explosiveness numeric

offense_rushing	numeric
offense_passing	numeric
offense_standard_downs	numeric
offense_passing_downs	numeric
offense_run_rate	numeric
offense_pace	numeric
defense_ranking	integer
defense_rating	numeric
defense_success	numeric
defense_explosiveness	numeric
defense_rushing	numeric
defense_passing	numeric
defense_standard_downs	numeric
defense_passing_downs	numeric
defense_havoc_total	numeric
defense_havoc_front_seven	numeric
defense_havoc_db	numeric
special_teams_rating	numeric

# See Also

```
Other CFBD Ratings and Rankings: cfbd_rankings(), cfbd_ratings_elo(), cfbd_ratings_fpi(), cfbd_ratings_sp_conference(), cfbd_ratings_srs()
```

# **Examples**

```
try(cfbd_ratings_sp(year = 2018))
try(cfbd_ratings_sp(team = "Texas A&M"))
try(cfbd_ratings_sp(year = 2019, team = "Texas"))
```

cfbd\_ratings\_sp\_conference

Get conference level SP historical rating data

# Description

Get conference level SP historical rating data

# Usage

```
cfbd_ratings_sp_conference(year = NULL, conference = NULL)
```

#### **Arguments**

year (*Integer* optional): Year, 4 digit format (*YYYY*)

conference (String optional): Conference abbreviation - S&P+ information by conference

Conference abbreviations P5: ACC, B12, B1G, SEC, PAC Conference abbreviations G5 and FBS Independents: CUSA, MAC, MWC, Ind, SBC, AAC

#### Value

cfbd\_ratings\_sp\_conference() - A data frame with 25 variables:

year: integer. Season of the conference rating.

conference: character. Conference name.

rating: double. Conference SP+ rating.

second\_order\_wins: **logical.** Second-order wins for the conference - Not available for recent seasons.

sos: logical. Strength of schedule for the conference - Not available for recent seasons...

offense\_rating: double. Overall offense rating for the conference.

offense\_success: **logical.** Offense success rating for the conference - Not available for recent seasons.

offense\_explosiveness: **logical.** Offense explosiveness rating for the conference - Not available for recent seasons.

offense\_rushing: **logical.** Offense rushing rating for the conference - Not available for recent seasons.

offense\_passing: **logical.** Offense passing rating for the conference - Not available for recent seasons.

offense\_standard\_downs: **logical.** Offense standard downs rating for the conference - Not available for recent seasons.

offense\_passing\_downs: **logical.** Offensive passing downs rating for the conference - Not available for recent seasons.

offense\_run\_rate: **logical.** Offense rushing rate for the conference - Not available for recent seasons.

offense\_pace: logical. Offense pace factor for the conference - Not available for recent seasons.

defense\_ranking: integer. Overall defense ranking for the conference.

defense\_rating: double. Overall defense rating for the conference.

defense\_success: **logical.** Defense success rating for the conference - Not available for recent seasons.

defense\_explosiveness: **logical.** Defense explosiveness rating for the conference - Not available for recent seasons.

defense\_rushing: **logical.** Defense rushing rating for the conference - Not available for recent seasons.

defense\_passing: **logical.** Defense passing rating for the conference - Not available for recent seasons.

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defense\_standard\_downs: **logical.** Defense standard downs rating for the conference - Not available for recent seasons.

- defense\_passing\_downs: **logical.** Defensive passing downs rating for the conference Not available for recent seasons.
- defense\_havoc\_total: **logical.** Total defensive havoc rate for the conference Not available for recent seasons.
- defense\_havoc\_front\_seven: **logical.** Defense havoc rate from front 7 players for the conference Not available for recent seasons.
- defense\_havoc\_db: logical. Defense havoc rate from defensive backs for the conference Not available for recent seasons.

special\_teams\_rating: double. Special teams rating for the conference.

#### See Also

```
Other CFBD Ratings and Rankings: cfbd_rankings(), cfbd_ratings_elo(), cfbd_ratings_fpi(), cfbd_ratings_sp(), cfbd_ratings_srs()
```

#### **Examples**

```
try(cfbd_ratings_sp_conference(year = 2019))
try(cfbd_ratings_sp_conference(year = 2012, conference = "SEC"))
try(cfbd_ratings_sp_conference(year = 2016, conference = "ACC"))
```

cfbd\_ratings\_srs

Get SRS historical rating data

#### Description

At least one of **year** or **team** must be specified for the function to run

# Usage

```
cfbd_ratings_srs(year = NULL, team = NULL, conference = NULL)
```

### **Arguments**

year (*Integer* optional): Year, 4 digit format (*YYYY*). Required if team not provided

team (String optional): D-I Team. Required if year not provided

conference (String optional): Conference abbreviation - SRS information by conference

Conference abbreviations P5: ACC, B12, B1G, SEC, PAC Conference abbreviations G5 and FBS Independents: CUSA, MAC, MWC, Ind, SBC, AAC

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#### Value

```
cfbd_ratings_srs() - A data frame with 6 variables:

year: integer. Season of the SRS rating.

team: character. Team name.

conference: character. Conference of the team.

division: logical. Division in the conference for the team.

rating: double. Simple Rating System (SRS) rating.

ranking: integer. Simple Rating System ranking within the group returned.
```

#### See Also

```
Other CFBD Ratings and Rankings: cfbd_rankings(), cfbd_ratings_elo(), cfbd_ratings_fpi(), cfbd_ratings_sp(), cfbd_ratings_sp_conference()
```

#### **Examples**

```
try(cfbd_ratings_srs(year = 2019, team = "Texas"))
try(cfbd_ratings_srs(year = 2018, conference = "SEC"))
```

cfbd\_recruiting

# **CFB Recruiting Endpoint Overview**

# Description

```
cfbd_recruiting_player(): Get college football player recruiting information for a single year
    with filters available for team, recruit type, state and position.
cfbd_recruiting_position(): Get college football position group recruiting information .
cfbd_recruiting_team(): Get college football recruiting team rankings information.
```

#### Get player recruiting rankings:

Get college football player recruiting information for a single year with filters available for team, recruit type, state and position.

```
cfbd_recruiting_player(2018, team = "Texas")
cfbd_recruiting_player(2016, recruit_type = "JUCO")
cfbd_recruiting_player(2020, recruit_type = "HighSchool", position = "OT", state = "FL")
```

# Get college football position group recruiting information.:

```
cfbd_recruiting_position(2018, team = "Texas")

cfbd_recruiting_position(2016, 2020, team = "Virginia")

cfbd_recruiting_position(2015, 2020, conference = "SEC")

Get college football recruiting team rankings information.:

cfbd_recruiting_team(2018, team = "Texas")

cfbd_recruiting_team(2016, team = "Virginia")

cfbd_recruiting_team(2016, team = "Texas A&M")

cfbd_recruiting_team(2011)
```

#### **Details**

Gets CFB team recruiting ranks with filters available for year and team. At least one of **year** or **team** must be specified for the function to run

If you would like CFB recruiting information for players, please see the cfbd\_recruiting\_player() function

If you would like to get CFB recruiting information based on position groups during a time period for all FBS teams, please see the cfbd\_recruiting\_position() function.

cfbd\_recruiting\_player() - At least one of year or team must be specified for the function to run

cfbd\_recruiting\_position() - If only start\_year is provided, function will get CFB recruiting information based on position groups during that year for all FBS teams.

cfbd\_recruiting\_player

#### Get player recruiting rankings

## **Description**

#### Get player recruiting rankings

# Usage

```
cfbd_recruiting_player(
  year = NULL,
  team = NULL,
  recruit_type = "HighSchool",
  state = NULL,
  position = NULL
)
```

#### **Arguments**

year (*Integer* optional): Year, 4 digit format (*YYYY*) - Minimum: 2000. Required if

team not provided

team (String optional): D-I Team. Required if year not provided

recruit\_type (String optional): default API return is 'HighSchool', other options include

'JUCO' or 'PrepSchool' - For position group information

state (*String* optional): Two letter State abbreviation
position (*String* optional): Position Group - options include:

• Offense: 'PRO', 'DUAL', 'RB', 'FB', 'TE', 'OT', 'OG', 'OC', 'WR'

• Defense: 'CB', 'S', 'OLB', 'ILB', 'WDE', 'SDE', 'DT'

• Special Teams: 'K', 'P'

#### Value

```
cfbd_recruiting_player() - A data frame with 14 variables:
id: integer. Referencing id - 247Sports.
athlete_id Athlete referencing id.
recruit_type: character. High School, Prep School, or Junior College.
year: integer. Recruit class year.
ranking: integer. Recruit Ranking.
name: character. Recruit Name.
```

school: character. School recruit attended.

committed\_to: character. School the recruit is committed to.

position: character. Recruit position.

height: double. Recruit height. weight: integer. Recruit weight. stars: integer. Recruit stars.

rating: **double.** 247 composite rating. city: **character.** Hometown of the recruit.

state\_province: character. Hometown state of the recruit.

country: character. Hometown country of the recruit.

hometown\_info\_latitude: character. Hometown latitude. hometown\_info\_longitude: character. Hometown longitude.

hometown\_info\_fips\_code: character. Hometown FIPS code.

#### See Also

Other CFBD Recruiting: cfbd\_recruiting\_position(), cfbd\_recruiting\_team(), cfbd\_recruiting\_transfer\_port

### **Examples**

```
try(cfbd_recruiting_player(2018, team = "Texas"))
try(cfbd_recruiting_player(2016, recruit_type = "JUCO"))
try(cfbd_recruiting_player(2020, recruit_type = "HighSchool", position = "OT", state = "FL"))
```

cfbd\_recruiting\_position

Get college football position group recruiting information.

# **Description**

Get college football position group recruiting information.

# Usage

```
cfbd_recruiting_position(
   start_year = NULL,
   end_year = NULL,
   team = NULL,
   conference = NULL
)
```

#### **Arguments**

start\_year (Integer optional): Start Year, 4 digit format (YYYY). Note: 2000 is the minimum

value

end\_year (Integer optional): End Year, 4 digit format (YYYY). Note: 2020 is the maximum

value currently

team (String optional): Team - Select a valid team, D-I football

conference (String optional): Conference abbreviation - Select a valid FBS conference Con-

ference abbreviations P5: ACC, B12, B1G, SEC, PAC Conference abbreviations

G5 and FBS Independents: CUSA, MAC, MWC, Ind, SBC, AAC

#### Value

cfbd\_recruiting\_position() - A data frame with 7 variables:

team: character. Recruiting team.

conference: character. Recruiting team conference.

position\_group: character. Position group of the recruits.

avg\_rating: double. Average rating of the recruits in the position group.

total\_rating: double. Sum of the ratings of the recruits in the position group.

commits: integer. Number of commits in the position group.

avg\_stars: double. Average stars of the recruits in the position group.

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### See Also

 $Other\ CFBD\ Recruiting\_cfbd\_recruiting\_player(), cfbd\_recruiting\_team(), cfbd\_recruiting\_transfer\_portal$ 

### **Examples**

```
try(cfbd_recruiting_position(2018, team = "Texas"))
try(cfbd_recruiting_position(2016, 2020, team = "Virginia"))
try(cfbd_recruiting_position(2015, 2020, conference = "SEC"))
```

cfbd\_recruiting\_team Get college football recruiting team rankings information.

#### **Description**

Get college football recruiting team rankings information.

#### **Usage**

```
cfbd_recruiting_team(year = NULL, team = NULL)
```

#### **Arguments**

year (Integer optional): Recruiting Class Year, 4 digit format (YYYY) - Minimum:

2000. Required if team not provided.

team (String optional): Team - Select a valid team, D1 football. Required if year not

provided.

#### Value

```
cfbd_recruiting_team() - A data frame with 4 variables:
```

```
year: integer. Recruiting class year. rank: integer. Team Recruiting rank. team: character. Recruiting Team. points: character. Team talent points.
```

#### See Also

Other CFBD Recruiting: cfbd\_recruiting\_player(), cfbd\_recruiting\_position(), cfbd\_recruiting\_transfer\_po

#### **Examples**

```
try(cfbd_recruiting_team(2018, team = "Texas"))
try(cfbd_recruiting_team(2016, team = "Virginia"))
try(cfbd_recruiting_team(2016, team = "Texas A&M"))
try(cfbd_recruiting_team(2011))
```

cfbd\_recruiting\_transfer\_portal

#### **Get Transfer Portal Data**

#### **Description**

#### **Get Transfer Portal Data**

#### Usage

```
cfbd_recruiting_transfer_portal(year)
```

#### **Arguments**

year

(*Integer* required): Year of the offseason (2021 would return transfer portal data starting from the end of the 2020 season), 4 digit format (*YYYY*).

### Value

```
cfbd_recruiting_transfer_portal() - A data frame with 11 variables:
season:integer Season of transfer.
first_name:character. Player's first name.
last_name:character. Player's last name.
position:character. Player position.
origin:character. original team.
destination:character. new team.
transfer_date:character. Date of transfer.
rating:character. Player's 247 transfer rating.
stars:integer Player's star rating.
eligibilty:character. Player's eligibilty status.
```

#### See Also

Other CFBD Recruiting: cfbd\_recruiting\_player(), cfbd\_recruiting\_position(), cfbd\_recruiting\_team()

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### **Examples**

```
try(cfbd_recruiting_transfer_portal(year = 2021))
```

cfbd\_stats

#### **CFBD Stats Endpoint Overview**

# **Description**

```
cfbd_stats_categories(): Get college football mapping for stats categories. cfbd_stats_season_team(): Get season statistics by team. cfbd_stats_season_advanced(): Get season advanced statistics by team. cfbd_stats_game_advanced(): Get game advanced stats. cfbd_stats_season_player(): Get season statistics by player.
```

#### **Details**

# Get game advanced stats:

```
cfbd_stats_game_advanced(year = 2018, week = 12, team = "Texas A&M")
cfbd_stats_game_advanced(2019, team = "LSU")
cfbd_stats_game_advanced(2013, team = "Florida State")
Get season advanced statistics by team:
cfbd_stats_season_advanced(2019, team = "LSU")
```

```
cfbd_stats_season_player(year = 2018, conference = "B12", start_week = 1, end_week = 7)
cfbd_stats_season_player(2019, team = "LSU", category = "passing")
```

```
cfbd_stats_season_player(2013, team = "Florida State", category = "passing")
```

# **Get season statistics by team:**

Get season statistics by player:

```
cfbd_stats_season_team(year = 2018, conference = "B12", start_week = 1, end_week = 8)
cfbd_stats_season_team(2019, team = "LSU")
cfbd_stats_season_team(2013, team = "Florida State")
```

#### **Get stats categories:**

This function identifies all Stats Categories identified in the regular stats endpoint.

```
cfbd_stats_categories()
```

# **Description**

This function identifies all Stats Categories identified in the regular stats endpoint.

# Usage

```
cfbd_stats_categories()
```

### Value

```
cfbd_stats_categories() A data frame with 38 values:
```

# name Statistics Categories

#### See Also

```
Other CFBD Stats: cfbd_stats_game_advanced(), cfbd_stats_season_advanced(), cfbd_stats_season_player(), cfbd_stats_season_team()
```

# **Examples**

```
try(cfbd_stats_categories())
```

```
cfbd_stats_game_advanced
```

# Get game advanced stats

# Description

# Get game advanced stats

# Usage

```
cfbd_stats_game_advanced(
  year,
  week = NULL,
  team = NULL,
  opponent = NULL,
  excl_garbage_time = FALSE,
  season_type = "both"
)
```

#### Arguments

year (*Integer* required): Year, 4 digit format(*YYYY*)

week (*Integer* optional): Week - values from 1-15, 1-14 for seasons pre-playoff (i.e.

2013 or earlier)

team (String optional): D-I Team

opponent (String optional): Opponent D-I Team

excl\_garbage\_time

(Logical default FALSE): Select whether to exclude Garbage Time (TRUE/FALSE)

season\_type (String default both): Season type - regular, postseason, both, allstar, spring\_regular,

spring\_postseason

#### Value

cfbd\_stats\_game\_advanced() - A data frame with 60 variables:

game\_id: integer. Referencing game id.

season: integer. Season of the game.

week: integer. Game week of the season.

team: character. Team name.

opponent: character. Opponent team name.

off\_plays: integer. Offense plays in the game.

off\_drives: integer. Offense drives in the game.

off\_ppa: double. Offense predicted points added (PPA).

off\_total\_ppa: **double.** Offense total predicted points added (PPA).

off\_success\_rate: double. Offense success rate.

off\_explosiveness: double. Offense explosiveness rate.

off\_power\_success: double. Offense power success rate.

off\_stuff\_rate: double. Opponent stuff rate.

off\_line\_yds: double. Offensive line yards.

off\_line\_yds\_total: integer. Offensive line yards total.

off\_second\_lvl\_yds: double. Offense second-level yards.

off\_second\_lvl\_yds\_total: integer. Offense second-level yards total.

off\_open\_field\_yds: integer. Offense open field yards.

off\_open\_field\_yds\_total: integer. Offense open field yards total.

off\_standard\_downs\_ppa: double. Offense standard downs predicted points added (PPA).

off\_standard\_downs\_success\_rate: double. Offense standard downs success rate.

off\_standard\_downs\_explosiveness: double. Offense standard downs explosiveness rate.

off\_passing\_downs\_ppa: double. Offense passing downs predicted points added (PPA).

off\_passing\_downs\_success\_rate: double. Offense passing downs success rate.

off\_passing\_downs\_explosiveness: double. Offense passing downs explosiveness rate.

```
off_rushing_plays_ppa: double. Offense rushing plays predicted points added (PPA).
off_rushing_plays_total_ppa: double. Offense rushing plays total predicted points added (PPA).
off_rushing_plays_success_rate: double. Offense rushing plays success rate.
off_rushing_plays_explosiveness: double. Offense rushing plays explosiveness rate.
off_passing_plays_ppa: double. Offense passing plays predicted points added (PPA).
off_passing_plays_total_ppa: double. Offense passing plays total predicted points added (PPA).
off_passing_plays_success_rate: double. Offense passing plays success rate.
off_passing_plays_explosiveness: double. Offense passing plays explosiveness rate.
def_plays: integer. Defense plays in the game.
def_drives: integer. Defense drives in the game.
def_ppa: double. Defense predicted points added (PPA).
def_total_ppa: double. Defense total predicted points added (PPA).
def_success_rate: double. Defense success rate.
def_explosiveness: double. Defense explosiveness rate.
def_power_success: double. Defense power success rate.
def_stuff_rate: double. Opponent stuff rate.
def_line_yds: double. Offensive line yards.
def_line_yds_total: integer. Offensive line yards total.
def_second_lvl_yds: double. Defense second-level yards.
def_second_lvl_yds_total: integer. Defense second-level yards total.
def_open_field_yds: integer. Defense open field yards.
def_open_field_yds_total: integer. Defense open field yards total.
def_standard_downs_ppa: double. Defense standard downs predicted points added (PPA).
def_standard_downs_success_rate: double. Defense standard downs success rate.
def_standard_downs_explosiveness: double. Defense standard downs explosiveness rate.
def_passing_downs_ppa: double. Defense passing downs predicted points added (PPA).
def_passing_downs_success_rate: double. Defense passing downs success rate.
def_passing_downs_explosiveness: double. Defense passing downs explosiveness rate.
def_rushing_plays_ppa: double. Defense rushing plays predicted points added (PPA).
def_rushing_plays_total_ppa: double. Defense rushing plays total predicted points added (PPA).
def_rushing_plays_success_rate: double. Defense rushing plays success rate.
def_rushing_plays_explosiveness: double. Defense rushing plays explosiveness rate.
def_passing_plays_ppa: double. Defense passing plays predicted points added (PPA).
def_passing_plays_total_ppa: double. Defense passing plays total predicted points added (PPA).
def_passing_plays_success_rate: double. Defense passing plays success rate.
def_passing_plays_explosiveness: double. Defense passing plays explosiveness rate.
```

#### See Also

```
Other CFBD Stats: cfbd_stats_categories(), cfbd_stats_season_advanced(), cfbd_stats_season_player(), cfbd_stats_season_team()
```

#### **Examples**

```
try(cfbd_stats_game_advanced(year = 2018, week = 12, team = "Texas A&M"))
try(cfbd_stats_game_advanced(2019, team = "LSU"))
try(cfbd_stats_game_advanced(2013, team = "Florida State"))
```

cfbd\_stats\_season\_advanced

Get season advanced statistics by team

#### **Description**

Get season advanced statistics by team

# Usage

```
cfbd_stats_season_advanced(
  year,
  team = NULL,
  excl_garbage_time = FALSE,
  start_week = NULL,
  end_week = NULL
)
```

### **Arguments**

#### Value

```
cfbd_stats_season_advanced() - A data frame with 82 variables:
season: integer. Season of the statistics.
team: character. Team name.
conference: character. Conference of the team.
off_plays: integer. Offense plays in the game.
off_drives: integer. Offense drives in the game.
off_ppa: double. Offense predicted points added (PPA).
off_total_ppa: double. Offense total predicted points added (PPA).
off_success_rate: double. Offense success rate.
off_explosiveness: double. Offense explosiveness rate.
off_power_success: double. Offense power success rate.
off_stuff_rate: double. Offense rushing stuff rate.
off_line_yds: double. Offensive line yards.
off_line_yds_total: integer. Offensive line yards total.
off_second_lvl_yds: double. Offense second-level yards.
off_second_lvl_yds_total: integer. Offense second-level yards total.
off_open_field_yds: integer. Offense open field yards.
off_open_field_yds_total: integer. Offense open field yards total.
off_total_opportunities: integer. Offense opportunities.
off_pts_per_opp: double. Offense points per scoring opportunity.
off_field_pos_avg_start: double. Offense starting average field position.
off_field_pos_avg_predicted_points: double. Offense starting average field position predicted
     points (PP).
off_havoc_total: double. Offense havoc rate total.
off_havoc_front_seven: double. Offense front-7 havoc rate.
off_havoc_db: double. Offense defensive back havoc rate.
off_standard_downs_rate: double. Offense standard downs rate.
off_standard_downs_ppa: double. Offense standard downs predicted points added (PPA).
off_standard_downs_success_rate: double. Offense standard downs success rate.
off_standard_downs_explosiveness: double. Offense standard downs explosiveness rate.
off_passing_downs_rate: double. Offense passing downs rate.
off_passing_downs_ppa: double. Offense passing downs predicted points added (PPA).
off_passing_downs_success_rate: double. Offense passing downs success rate.
off_passing_downs_explosiveness: double. Offense passing downs explosiveness rate.
off_rushing_plays_rate: double. Offense rushing plays rate.
off_rushing_plays_ppa: double. Offense rushing plays predicted points added (PPA).
```

```
off_rushing_plays_total_ppa: double. Offense rushing plays total predicted points added (PPA).
off_rushing_plays_success_rate: double. Offense rushing plays success rate.
off_rushing_plays_explosiveness: double. Offense rushing plays explosiveness rate.
off_passing_plays_rate: double. Offense passing plays rate.
off_passing_plays_ppa: double. Offense passing plays predicted points added (PPA).
off_passing_plays_total_ppa: double. Offense passing plays total predicted points added (PPA).
off_passing_plays_success_rate: double. Offense passing plays success rate.
off_passing_plays_explosiveness: double. Offense passing plays explosiveness rate.
def_plays: integer. Defense plays in the game.
def_drives: integer. Defense drives in the game.
def_ppa: double. Defense predicted points added (PPA).
def_total_ppa: double. Defense total predicted points added (PPA).
def_success_rate: double. Defense success rate.
def_explosiveness: double. Defense explosiveness rate.
def_power_success: double. Defense power success rate.
def_stuff_rate: double. Defense rushing stuff rate.
def_line_yds: double. Defense Offensive line yards allowed.
def_line_yds_total: integer. Defense Offensive line yards total allowed.
def_second_lvl_yds: double. Defense second-level yards.
def_second_lvl_yds_total: integer. Defense second-level yards total.
def_open_field_yds: integer. Defense open field yards.
def_open_field_yds_total: integer. Defense open field yards total.
def_total_opportunities: integer. Defense opportunities.
def_pts_per_opp: double. Defense points per scoring opportunity.
def_field_pos_avg_start: double. Defense starting average field position.
def_field_pos_avg_predicted_points: double. Defense starting average field position predicted
     points (PP).
def_havoc_total: double. Defense havoc rate total.
def_havoc_front_seven: double. Defense front-7 havoc rate.
def_havoc_db: double. Defense defensive back havoc rate.
def_standard_downs_rate: double. Defense standard downs rate.
def_standard_downs_ppa: double. Defense standard downs predicted points added (PPA).
def_standard_downs_success_rate: double. Defense standard downs success rate.
def_standard_downs_explosiveness: double. Defense standard downs explosiveness rate.
def_passing_downs_rate: double. Defense passing downs rate.
def_passing_downs_ppa: double. Defense passing downs predicted points added (PPA).
def_passing_downs_success_rate: double. Defense passing downs success rate.
```

```
def_passing_downs_explosiveness: double. Defense passing downs explosiveness rate.

def_rushing_plays_rate: double. Defense rushing plays rate.

def_rushing_plays_ppa: double. Defense rushing plays predicted points added (PPA).

def_rushing_plays_total_ppa: double. Defense rushing plays total predicted points added (PPA).

def_rushing_plays_success_rate: double. Defense rushing plays success rate.

def_rushing_plays_explosiveness: double. Defense rushing plays explosiveness rate.

def_passing_plays_rate: double. Defense passing plays rate.

def_passing_plays_ppa: double. Defense passing plays predicted points added (PPA).

def_passing_plays_total_ppa: double. Defense passing plays total predicted points added (PPA).

def_passing_plays_success_rate: double. Defense passing plays success rate.

def_passing_plays_explosiveness: double. Defense passing plays success rate.
```

#### See Also

```
Other CFBD Stats: cfbd_stats_categories(), cfbd_stats_game_advanced(), cfbd_stats_season_player(), cfbd_stats_season_team()
```

#### **Examples**

```
try(cfbd_stats_season_advanced(2019, team = "LSU"))
```

```
cfbd_stats_season_player
```

## Get season statistics by player

# **Description**

#### Get season statistics by player

# Usage

```
cfbd_stats_season_player(
  year,
  season_type = "both",
  team = NULL,
  conference = NULL,
  start_week = NULL,
  end_week = NULL,
  category = NULL
)
```

#### **Arguments**

year (*Integer* required): Year, 4 digit format (*YYYY*)

season\_type (String default both): Season type - regular, postseason, both, allstar, spring\_regular,

spring\_postseason

team (String optional): D-I Team

conference (String optional): Conference abbreviation - Select a valid FBS conference Con-

ference abbreviations P5: ACC, B12, B1G, SEC, PAC Conference abbreviations

G5 and FBS Independents: CUSA, MAC, MWC, Ind, SBC, AAC

start\_week (Integer optional): Starting Week - values range from 1-15, 1-14 for seasons

pre-playoff, i.e. 2013 or earlier

end\_week (Integer optional): Ending Week - values range from 1-15, 1-14 for seasons

pre-playoff, i.e. 2013 or earlier

category (String optional): Category filter (e.g defensive) Offense: passing, receiving,

rushing Defense: defensive, fumbles, interceptions Special Teams: punting,

puntReturns, kicking, kickReturns

#### Value

cfbd\_stats\_season\_player() - A data frame with 59 variables:

year: integer. Season of the player stats.

team: character. Team name.

conference: **character.** Conference of the team. athlete\_id: **character.** Athlete referencing id.

player: **character.** Player name. position: **character.** Player position.

passing\_completions: double. Passing completions.

passing\_att: double. Passing attempts.

passing\_pct: double. Passing completion percentage.

passing\_yds: double. Passing yardage. passing\_td: double. Passing touchdowns.

passing\_int: **double.** Passing interceptions. passing\_ypa: **double.** Passing yards per attempt.

rushing\_car: **double.** Rushing yards per carry.

rushing\_yds: double. Rushing yards total.

rushing\_td: double. Rushing touchdowns.

rushing\_ypc: double. Rushing yards per carry.

rushing\_long: double. Rushing longest yardage attempt.

receiving\_rec: double. Receiving - pass receptions.

receiving\_yds: double. Receiving - pass reception yards.

```
receiving_td: double. Receiving - passing reception touchdowns.
receiving_ypr: double. Receiving - passing yards per reception.
receiving_long: double. Receiving - longest pass reception yardage.
fumbles_fum: double. Fumbles.
fumbles_rec: double. Fumbles recovered.
fumbles_lost: double. Fumbles lost.
defensive_solo: double. Defensive solo tackles.
defensive_tot: double. Defensive total tackles.
defensive_tfl: double. Defensive tackles for loss.
defensive_sacks: double. Defensive sacks.
defensive_qb_hur: double. Defensive quarterback hurries.
interceptions_int: double. Interceptions total.
interceptions_yds: double. Interception return yards.
interceptions_avg: double. Interception return yards average.
interceptions_td: double. Interception return touchdowns.
defensive_pd: double. Defense - passes defensed.
defensive_td: double. Defense - defensive touchdowns.
kicking_fgm: double. Kicking - field goals made.
kicking_fga: double. Kicking - field goals attempted.
kicking_pct: double. Kicking - field goal percentage.
kicking_xpa: double. Kicking - extra points attempted.
kicking_xpm: double. Kicking - extra points made.
kicking_pts: double. Kicking - total points.
kicking_long: double. Kicking - longest successful field goal attempt.
kick_returns_no: double. Kick Returns - number of kick returns.
kick_returns_yds: double. Kick Returns - kick return yards.
kick_returns_avg: double. Kick Returns - kick return average yards per return.
kick_returns_td: double. Kick Returns - kick return touchdowns.
kick_returns_long: double. Kick Returns - longest kick return yardage.
punting_no: double. Punting - number of punts.
punting_yds: double. Punting - punting yardage.
punting_ypp: double. Punting - yards per punt.
punting_long: double. Punting - longest punt yardage.
punting_in_20: double. Punting - punt downed inside the 20 yard line.
punting_tb: double. Punting - punt caused a touchback.
punt_returns_no: double. Punt Returns - number of punt returns.
punt_returns_yds: double. Punt Returns - punt return yardage total.
punt_returns_avg: double. Punt Returns - punt return average yards per return.
punt_returns_td: double. Punt Returns - punt return touchdowns.
punt_returns_long: double. Punt Returns - longest punt return yardage.
```

cfbd\_stats\_season\_team

#### See Also

```
Other CFBD Stats: cfbd_stats_categories(), cfbd_stats_game_advanced(), cfbd_stats_season_advanced(), cfbd_stats_season_team()
```

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#### **Examples**

```
try(cfbd_stats_season_player(year = 2018, conference = "B12", start_week = 1, end_week = 7))
try(cfbd_stats_season_player(2019, team = "LSU", category = "passing"))
try(cfbd_stats_season_player(2013, team = "Florida State", category = "passing"))
```

cfbd\_stats\_season\_team

#### Get season statistics by team

# Description

#### Get season statistics by team

#### Usage

```
cfbd_stats_season_team(
  year,
  season_type = "both",
  team = NULL,
  conference = NULL,
  start_week = NULL,
  end_week = NULL
```

#### **Arguments**

```
(Integer required): Year, 4 digit format (YYYY)
year
                  (String default: both): Select Season Type - regular, postseason, or both
season_type
team
                  (String optional): D-I Team
conference
                  (String optional): Conference abbreviation - Select a valid FBS conference Con-
                  ference abbreviations P5: ACC, B12, B1G, SEC, PAC Conference abbreviations
                  G5 and FBS Independents: CUSA, MAC, MWC, Ind, SBC, AAC
start_week
                  (Integer optional): Starting Week - values range from 1-15, 1-14 for seasons
                  pre-playoff, i.e. 2013 or earlier
end_week
                  (Integer optional): Ending Week - values range from 1-15, 1-14 for seasons
                  pre-playoff, i.e. 2013 or earlier
```

#### Value

```
cfbd_stats_season_team() - A data frame with 32 variables:
season: integer Season for stats.
team: character. Team name.
conference: character. Conference of team.
games: integer. Number of games.
time_of_poss_total: integer. Time of possession total.
time_of_poss_pg: double. Time of possession per game.
pass_comps: integer. Total number of pass completions.
pass_atts: integer. Total number of pass attempts.
completion_pct: double. Passing completion percentage.
net_pass_yds: integer. Net passing yards.
pass_ypa: double. Passing yards per attempt.
pass_ypr: double. Passing yards per reception.
pass_TDs: integer. Passing touchdowns.
interceptions: integer. Passing interceptions.
int_pct: double. Interception percentage (of attempts).
rush_atts: integer. Rushing attempts.
rush_yds: integer. Rushing yards.
rush_TDs: integer. Rushing touchdowns.
rush_ypc: double. Rushing yards per carry.
total_yds: integer. Rushing total yards.
fumbles_lost: integer. Fumbles lost.
turnovers: integer. Turnovers total.
turnovers_pg: double. Turnovers per game.
first_downs: integer. Number of first downs.
third_downs: integer. Number of third downs.
third_down_convs: integer. Number of third down conversions.
third_conv_rate: double. Third down conversion rate.
fourth_down_convs: integer. Fourth down conversions.
fourth_downs: integer. Fourth downs.
fourth_conv_rate: double. Fourth down conversion rate.
penalties: integer. Total number of penalties.
penalty_yds: integer. Penalty yards total.
penalties_pg: double. Penalties per game.
penalty_yds_pg: double. Penalty yardage per game.
yards_per_penalty: double. Average yards per penalty.
```

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```
kick_returns: integer. Number of kick returns.
kick_return_yds: integer. Total kick return yards.
kick_return_TDs: integer. Total kick return touchdowns.
kick_return_avg: double. Kick return yards average.
punt_returns: integer. Number of punt returns.
punt_return_yds: integer. Punt return total yards.
punt_return_TDs: integer. Punt return total touchdowns.
punt_return_avg: double. Punt return yards average.
passes_intercepted: integer. Passes intercepted.
passes_intercepted_yds: integer. Pass interception return yards.
passes_intercepted_TDs: integer. Pass interception return touchdowns.
```

#### See Also

```
Other CFBD Stats: cfbd_stats_categories(), cfbd_stats_game_advanced(), cfbd_stats_season_advanced(), cfbd_stats_season_player()
```

#### **Examples**

```
try(cfbd_stats_season_team(year = 2018, conference = "B12", start_week = 1, end_week = 8))
try(cfbd_stats_season_team(2019, team = "LSU"))
try(cfbd_stats_season_team(2013, team = "Florida State"))
```

cfbd\_teams

# **CFBD Teams Endpoint Overview**

# **Description**

```
cfbd_team_info(): Team Info Lookup.
cfbd_team_roster(): Get a team's full roster by year.
cfbd_team_talent(): Get composite team talent rankings for all teams in a given year.
cfbd_team_matchup_records(): Get matchup history records between two teams.
cfbd_team_matchup(): Get matchup history between two teams.
```

#### Team info lookup:

Lists all teams in conference or all D-I teams if conference is left NULL Currently, support is only provided for D-I

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```
cfbd_team_info(conference = "SEC")
cfbd_team_info(conference = "Ind")
cfbd_team_info(year = 2019)
Get team rosters:
 It is now possible to access yearly rosters:
 cfbd_team_roster(year = 2020)
 Get a teams full roster by year. If team is not selected, API returns rosters for every team from
 the selected year.:
 cfbd_team_roster(year = 2013, team = "Florida State")
 Get composite team talent rankings:
 Extracts team talent composite for all teams in a given year as sourced from 247 rankings
 cfbd_team_talent()
 cfbd_team_talent(year = 2018)
 Get matchup history between two teams.:
 cfbd_team_matchup("Texas A&M", "TCU")
 cfbd_team_matchup("Texas A&M", "TCU", min_year = 1975)
 cfbd_team_matchup("Florida State", "Florida", min_year = 1975)
 Get matchup history records between two teams.:
 cfbd_team_matchup_records("Texas", "Oklahoma")
```

cfbd\_team\_info

Team info lookup

cfbd\_team\_matchup\_records("Texas A&M", "TCU", min\_year = 1975)

#### **Description**

#### Team info lookup

# Usage

```
cfbd_team_info(
  conference = NULL,
  only_fbs = TRUE,
  year = most_recent_cfb_season()
)
```

cfbd\_team\_info

#### Arguments

conference (String optional): Conference abbreviation - Select a valid FBS conference Con-

ference abbreviations P5: ACC, B12, B1G, SEC, PAC, Conference abbreviations G5 and FBS Independents: CUSA, MAC, MWC, Ind, SBC, AAC Re-

quired if year not provided

only\_fbs (Logical default TRUE): Filter for only returning FBS teams for a given year.

If year is left blank while only\_fbs is TRUE, then will return values for most

current year

year (*Integer* optional): Year, 4 digit format (*YYYY*). Filter for getting a list of major

division team for a given year. Required if conference not provided and the year

parameter is only supported if only\_fbs is TRUE.

#### Value

```
cfbd_team_info() - A data frame with 12 variables:
team_id: integer. Referencing team id.
school: character. Team name.
mascot: character. Team mascot.
abbreviation: character. Team abbreviations.
alt_name1: character. Team alternate name 1 (as it appears in play_text).
alt_name2: character. Team alternate name 2 (as it appears in play_text).
alt_name3: character. Team alternate name 3 (as it appears in play_text).
conference: character. Conference of team.
division: character. Division of team within the conference.
classification: character. Conference classification (fbs,fcs,ii,iii)
color: character. Team color (primary).
alt_color: character. Team color (alternate).
logos: character. Team logos.
venue_id: character. Referencing venue id.
venue_name: character. Stadium name.
city: character. Team/venue city.
state: character. Team/venue state.
zip: character. Team/venue zip code (someone double check Miami (FL) on if they're in the same
country_code: character. Team/venue country code.
timezone: character. Team/venue timezone.
latitude: character. Venue latitude.
longitude: character. Venue longitude.
elevation: character. Venue elevation.
capacity: character. Venue capacity.
```

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```
year_constructed: character. Year the venue was constructed.
```

grass: **character.** TRUE/FALSE response on whether the field is grass or not (oh, and there are so many others).

dome: character. TRUE/FALSE flag for if the venue is a domed stadium.

#### See Also

```
Other CFBD Teams: cfbd_team_matchup(), cfbd_team_matchup_records(), cfbd_team_roster(), cfbd_team_talent()
```

#### **Examples**

```
try(cfbd_team_info(conference = "SEC"))
try(cfbd_team_info(conference = "Ind"))
try(cfbd_team_info(year = 2019))
```

cfbd\_team\_matchup

Get matchup history between two teams.

## **Description**

Get matchup history between two teams.

#### Usage

```
cfbd_team_matchup(team1, team2, min_year = NULL, max_year = NULL)
```

#### **Arguments**

```
team1 (String required): D-I Team 1
team2 (String required): D-I Team 2
min_year (Integer optional): Minimum of year range, 4 digit format (YYYY)
max_year (Integer optional): Maximum of year range, 4 digit format (YYYY)
```

#### Value

```
cfbd_team_matchup - A data frame with 11 variables:
```

```
week: integer. Season the game took place.
week: integer. Game week of the season.
season_type: character. Season type of the game.
date: character. Game date.
```

neutral\_site: logical. TRUE/FALSE flag for if the game took place at a neutral site.

```
venue: character. Stadium name.
home_team: character. Home team of the game.
home_score: integer. Home score in the game.
away_team: character. Away team of the game.
away_score: integer. Away score in the game.
winner: character. Winner of the matchup.
```

# See Also

```
Other CFBD Teams: cfbd_team_info(), cfbd_team_matchup_records(), cfbd_team_roster(), cfbd_team_talent()
```

# **Examples**

```
try(cfbd_team_matchup("Texas", "Oklahoma"))
try(cfbd_team_matchup("Texas A&M", "TCU"))
try(cfbd_team_matchup("Texas A&M", "TCU", min_year = 1975))
try(cfbd_team_matchup("Florida State", "Florida", min_year = 1975))
```

```
cfbd_team_matchup_records
```

Get matchup history records between two teams.

# **Description**

Get matchup history records between two teams.

# Usage

```
cfbd_team_matchup_records(team1, team2, min_year = NULL, max_year = NULL)
```

# **Arguments**

```
team1 (String required): D-I Team 1
team2 (String required): D-I Team 2
min_year (Integer optional): Minimum of year range, 4 digit format (YYYY)
max_year (Integer optional): Maximum of year range, 4 digit format (YYYY)
```

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#### Value

```
cfbd_team_matchup_records() - A data frame with 7 variables:
start_year: character. Span starting year.
end_year: character. Span ending year.
team1: character. First team selected in query.
team1_wins: character. First team wins in series against team2.
team2: character. Second team selected in query.
team2_wins: character. Second team wins in series against team1.
ties: character. Number of ties in the series.
```

#### See Also

```
Other\ CFBD\ Teams:\ cfbd\_team\_info(),\ cfbd\_team\_matchup(),\ cfbd\_team\_roster(),\ cfbd\_team\_talent()
```

#### **Examples**

```
try(cfbd_team_matchup_records("Texas", "Oklahoma"))
try(cfbd_team_matchup_records("Texas A&M", "TCU", min_year = 1975))
```

cfbd\_team\_roster

**Get team rosters** 

# **Description**

Get a teams full roster by year. If team is not selected, API returns rosters for every team from the selected year.

#### Usage

```
cfbd_team_roster(year, team = NULL)
```

# Arguments

year (*Integer* required): Year, 4 digit format (*YYYY*)

team (String optional): Team, select a valid team in D-I football

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#### Value

```
cfbd_team_roster() - A data frame with 12 variables:
    athlete_id: character. Referencing athlete id.
    first_name: character. Athlete first name.
    last_name: character. Athlete last name.
    team: character. Team name.
    weight: integer. Athlete weight.
    height: integer. Athlete height.
    jersey: integer. Athlete jersey number.
    year: integer. Athlete year.
    position: character. Athlete position.
    home_city: character. Hometown of the athlete.
    home_state: character. Hometown state of the athlete.
    home_country: character. Hometown country of the athlete.
    home_latitude: numeric. Hometown latitude.
    home_longitude: number. Hometown longitude.
    home_county_fips: integer. Hometown FIPS code.
    headshot_url: character Player ESPN headshot url.
See Also
    Other CFBD Teams: cfbd_team_info(), cfbd_team_matchup(), cfbd_team_matchup_records(),
    cfbd_team_talent()
```

#### **Examples**

```
try(cfbd_team_roster(year = 2013, team = "Florida State"))
```

cfbd\_team\_talent

Get composite team talent rankings for all teams in a given year

# **Description**

Extracts team talent composite as sourced from 247 rankings

# Usage

```
cfbd_team_talent(year = most_recent_cfb_season())
```

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#### **Arguments**

```
year (Integer optional): Year 4 digit format (YYYY)
```

#### Value

```
cfbd_team_talent() - A data frame with 3 variables:
year: integer. Season for the talent rating.
school: character. Team name.
talent: double. Overall roster talent points (as determined by 247Sports).
```

#### See Also

```
Other CFBD Teams: cfbd_team_info(), cfbd_team_matchup(), cfbd_team_matchup_records(), cfbd_team_roster()
```

# **Examples**

```
try(cfbd_team_talent())
try(cfbd_team_talent(year = 2018))
```

cfbd\_venues

# **CFBD Venues Endpoint Overview**

# **Description**

Pulls all college football venues and data on capacity, grass, city/state, location, elevation, dome, timezone and construction year.

# Usage

```
cfbd_venues()
```

#### **Details**

CFB Venue Information

```
cfbd_venues()
```

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# Value

A data frame with 337 rows and 13 variables:

venue\_id:integer. Referencing venue ID.

name:character. Venue name.

capacity:integer. Stadium capacity.

grass:**logical.** TRUE/FALSE response on whether the field is grass or not (oh, and there are so many others).

city:character. Venue city.

state:character. Venue state.

zip:character. Venue zip.

country\_code:character. Venue country code.

latitude:double. Venue latitude.

longitude: double. Venue longitude.

elevation: character. Venue elevation.

year\_constructed:integer. Year in which the venue was constructed.

dome:logical. TRUE/FALSE response to whether the venue has a dome or not.

timezone:character. Time zone in which the venue resides (i.e. Eastern Time -> "America/New York").

### **Examples**

try(cfbd\_venues())

csv\_from\_url

Load .csv / .csv.gz file from a remote connection

#### **Description**

This is a thin wrapper on data.table::fread

# Usage

```
csv_from_url(...)
```

### **Arguments**

... passed to data.table::fread

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data

#### Data in the package for reference

# **Description**

Data in the package for reference College Football Mapping for Play Types College Football Conferences

# Usage

```
cfbd_play_type_df
cfbd_conf_types_df
```

#### **Format**

A data frame with 45 rows and 3 variables:

id Referencing play id

text play type description

abbreviation play type abbreviation used for function call

A data frame with 11 rows and 4 variables:

id Referencing conference id

name Conference name

**short\_name** Short name for Conference **abbreviation** Conference abbreviation

espn\_cfb\_calendar

ESPN Calendar

# Description

look up the men's college football calendar for a given season

# Usage

```
espn_cfb_calendar(year = NULL, groups = NULL)
```

# Arguments

year (int): Used to define different seasons. 2002 is the earliest available season.

groups (string): Used to define different divisions. FBS or FCS.

espn\_cfb\_pbp

#### Value

```
espn_cfb_calendar() - A data frame with 8 variables:
season: character. .
season_type: character. .
label: character. .
alternate_label: character. .
detail: character. .
week: character. .
start_date: character. .
end_date: character. .
```

#### **Examples**

```
try(espn_cfb_calendar(2021))
```

espn\_cfb\_pbp

Get ESPN college football PBP data

### **Description**

Get ESPN college football PBP data

#### Usage

```
espn_cfb_pbp(game_id, epa_wpa = FALSE)
```

#### **Arguments**

game\_id Game ID

epa\_wpa Logical parameter (TRUE/FALSE) to return the Expected Points Added/Win

Probability Added variables

#### Value

A data frame with college football play-by-play data

#### Author(s)

Saiem Gilani

## **Examples**

```
try(espn_cfb_pbp(game_id = 401282614, epa_wpa = TRUE))
```

espn\_cfb\_player\_stats Get ESPN college football player stats data

#### **Description**

#### Get ESPN college football player stats data

#### Usage

```
espn_cfb_player_stats(athlete_id, year, season_type = "regular", total = FALSE)
```

#### **Arguments**

athlete\_id Athlete ID year Year

season\_type (character, default: regular): Season type - regular or postseason

total (boolean, default: FALSE): Totals

#### Value

Returns a tibble with the following columns:

col\_name types athlete id character athlete\_uid character athlete\_guid character athlete\_type character sdr character first\_name character last name character full\_name character display\_name character short\_name character weight numeric display\_weight character height numeric display\_height character age integer date\_of\_birth character birth\_place\_city character birth place state character character birth\_place\_country birth\_country\_alternate\_id character birth\_country\_abbreviation character slug character character jersey

flag\_href character flag\_alt character flag\_x\_country\_flag character character position\_id position\_name character position\_display\_name character position\_abbreviation character position leaf logical linked logical experience\_years integer experience\_display\_value character experience\_abbreviation character active logical status\_id character character status\_name status\_type character status\_abbreviation character headshot\_href character headshot alt character general fumbles numeric general\_fumbles\_lost numeric general\_fumbles\_touchdowns numeric general\_games\_played numeric general\_offensive\_two\_pt\_returns numeric general offensive fumbles touchdowns numeric general defensive fumbles touchdowns numeric passing\_avg\_gain numeric passing\_completion\_pct numeric passing\_completions numeric passing\_espnqb\_rating numeric passing\_interception\_pct numeric passing\_interceptions numeric passing\_long\_passing numeric passing\_net\_passing\_yards numeric passing\_net\_passing\_yards\_per\_game numeric passing\_net\_total\_yards numeric passing\_net\_yards\_per\_game numeric passing\_passing\_attempts numeric passing\_passing\_big\_plays numeric passing\_passing\_first\_downs numeric passing\_passing\_fumbles numeric passing\_passing\_fumbles\_lost numeric passing\_passing\_touchdown\_pct numeric passing\_passing\_touchdowns numeric passing\_passing\_yards numeric passing\_passing\_yards\_after\_catch numeric numeric passing\_passing\_yards\_at\_catch passing\_passing\_yards\_per\_game numeric

passing\_qb\_rating numeric passing\_sacks numeric passing\_sack\_yards\_lost numeric passing\_team\_games\_played numeric passing\_total\_offensive\_plays numeric passing\_total\_points\_per\_game numeric passing\_total\_touchdowns numeric passing\_total\_yards numeric passing\_total\_yards\_from\_scrimmage numeric passing\_two\_point\_pass\_convs numeric passing\_two\_pt\_pass numeric passing\_two\_pt\_pass\_attempts numeric passing\_yards\_from\_scrimmage\_per\_game numeric passing\_yards\_per\_completion numeric passing\_yards\_per\_game numeric passing\_yards\_per\_pass\_attempt numeric passing\_net\_yards\_per\_pass\_attempt numeric passing\_qbr numeric passing\_adj\_qbr numeric passing\_quarterback\_rating numeric rushing\_avg\_gain numeric rushing espnrb rating numeric rushing\_long\_rushing numeric rushing\_net\_total\_yards numeric rushing\_net\_yards\_per\_game numeric rushing rushing attempts numeric rushing\_rushing\_big\_plays numeric rushing\_rushing\_first\_downs numeric rushing\_rushing\_fumbles numeric rushing\_rushing\_fumbles\_lost numeric rushing\_rushing\_touchdowns numeric rushing\_rushing\_yards numeric rushing\_rushing\_yards\_per\_game numeric rushing\_stuffs numeric rushing\_stuff\_yards\_lost numeric rushing\_team\_games\_played numeric rushing total offensive plays numeric rushing\_total\_points\_per\_game numeric rushing\_total\_touchdowns numeric rushing\_total\_yards numeric rushing\_total\_yards\_from\_scrimmage numeric rushing two point rush convs numeric rushing two pt rush numeric rushing\_two\_pt\_rush\_attempts numeric rushing\_yards\_from\_scrimmage\_per\_game numeric rushing\_yards\_per\_game numeric rushing\_yards\_per\_rush\_attempt numeric receiving\_avg\_gain numeric

receiving\_espnwr\_rating numeric receiving\_long\_reception numeric receiving\_net\_total\_yards numeric receiving\_net\_yards\_per\_game numeric receiving\_receiving\_big\_plays numeric receiving\_receiving\_first\_downs numeric receiving\_receiving\_fumbles numeric receiving\_receiving\_fumbles\_lost numeric receiving receiving targets numeric receiving\_receiving\_touchdowns numeric receiving\_receiving\_yards numeric receiving\_receiving\_yards\_after\_catch numeric receiving\_receiving\_yards\_at\_catch numeric receiving\_receiving\_yards\_per\_game numeric receiving\_receptions numeric receiving\_team\_games\_played numeric receiving\_total\_offensive\_plays numeric receiving\_total\_points\_per\_game numeric receiving\_total\_touchdowns numeric receiving\_total\_yards numeric receiving\_total\_yards\_from\_scrimmage numeric receiving two point rec convs numeric receiving\_two\_pt\_reception numeric receiving\_two\_pt\_reception\_attempts numeric receiving yards from scrimmage per game numeric receiving yards per game numeric receiving\_yards\_per\_reception numeric scoring\_defensive\_points numeric scoring\_field\_goals numeric scoring\_kick\_extra\_points numeric scoring\_kick\_extra\_points\_made numeric scoring\_misc\_points numeric scoring\_passing\_touchdowns numeric scoring\_receiving\_touchdowns numeric scoring\_return\_touchdowns numeric scoring\_rushing\_touchdowns numeric scoring total points numeric scoring\_total\_points\_per\_game numeric scoring\_total\_touchdowns numeric scoring\_total\_two\_point\_convs numeric scoring\_two\_point\_pass\_convs numeric scoring two point rec convs numeric scoring two point rush convs numeric scoring\_one\_pt\_safeties\_made numeric general fumbles forced logical general\_fumbles\_recovered logical passing\_misc\_yards logical passing\_total\_points logical

rushing\_misc\_yards logical rushing\_total\_points logical logical receiving\_misc\_yards receiving\_total\_points logical defensive\_assist\_tackles logical defensive\_avg\_interception\_yards logical logical defensive\_avg\_sack\_yards defensive avg stuff yards logical defensive blocked field goal touchdowns logical defensive\_blocked\_punt\_touchdowns logical defensive defensive touchdowns logical defensive\_hurries logical defensive\_kicks\_blocked logical defensive\_long\_interception logical defensive\_misc\_touchdowns logical defensive\_missed\_field\_goal\_return\_td numeric defensive\_blocked\_punt\_ez\_rec\_td numeric defensive\_passes\_batted\_down logical defensive\_passes\_defended logical logical defensive\_two\_pt\_returns defensive\_sacks logical defensive sack yards logical defensive\_safeties logical logical defensive solo tackles defensive stuffs logical defensive stuff yards logical defensive\_tackles\_for\_loss logical defensive\_team\_games\_played logical defensive\_total\_tackles logical defensive\_yards\_allowed logical defensive\_points\_allowed logical defensive\_one\_pt\_safeties\_made logical defensive\_interceptions\_interceptions logical defensive\_interceptions\_interception\_touchdowns logical defensive\_interceptions\_interception\_yards logical kicking\_avg\_kickoff\_return\_yards logical kicking avg kickoff yards logical kicking\_extra\_point\_attempts logical kicking\_extra\_point\_pct logical kicking\_extra\_points\_blocked logical kicking\_extra\_points\_blocked\_pct logical kicking extra points made logical kicking fair catches logical kicking\_fair\_catch\_pct logical kicking field goal attempts logical kicking\_field\_goal\_attempts1\_19 logical kicking\_field\_goal\_attempts20\_29 logical kicking\_field\_goal\_attempts30\_39 logical

kicking\_field\_goal\_attempts40\_49 logical kicking\_field\_goal\_attempts50\_59 logical kicking\_field\_goal\_attempts60 99 logical kicking\_field\_goal\_attempts50 logical kicking\_field\_goal\_attempt\_yards logical kicking\_field\_goal\_pct logical kicking\_field\_goals\_blocked logical kicking field goals blocked pct logical kicking field goals made logical kicking\_field\_goals\_made1\_19 logical kicking field goals made20 29 logical kicking\_field\_goals\_made30\_39 logical kicking\_field\_goals\_made40\_49 logical logical kicking\_field\_goals\_made50\_59 logical kicking\_field\_goals\_made60\_99 kicking\_field\_goals\_made50 logical kicking\_field\_goals\_made\_yards logical kicking\_field\_goals\_missed\_yards logical kicking\_kickoff\_returns logical kicking kickoff return touchdowns logical kicking\_kickoff\_return\_yards logical kicking kickoffs logical kicking\_kickoff\_yards logical kicking\_long\_field\_goal\_attempt logical kicking long field goal made logical kicking long kickoff logical kicking\_team\_games\_played logical kicking\_total\_kicking\_points logical kicking\_touchback\_pct logical kicking\_touchbacks logical returning\_def\_fumble\_returns logical returning\_def\_fumble\_return\_yards logical returning\_fumble\_recoveries logical returning\_fumble\_recovery\_yards logical logical returning\_kick\_return\_fair\_catches returning\_kick\_return\_fair\_catch\_pct logical returning kick return fumbles logical returning\_kick\_return\_fumbles\_lost logical returning kick returns logical returning\_kick\_return\_touchdowns logical returning kick return yards logical returning long kick return logical returning long punt return logical returning misc fumble returns logical returning misc fumble return yards logical returning\_opp\_fumble\_recoveries logical returning\_opp\_fumble\_recovery\_yards logical returning\_opp\_special\_team\_fumble\_returns logical

returning\_opp\_special\_team\_fumble\_return\_yards logical returning\_punt\_return\_fair\_catches logical returning\_punt\_return\_fair\_catch\_pct logical logical returning\_punt\_return\_fumbles returning\_punt\_return\_fumbles\_lost logical returning\_punt\_returns logical returning\_punt\_returns\_started\_inside\_the10 logical returning punt returns started inside the 20 logical returning punt return touchdowns logical returning\_punt\_return\_yards logical returning\_special\_team\_fumble\_returns logical logical returning\_special\_team\_fumble\_return\_yards logical returning\_team\_games\_played logical returning\_yards\_per\_kick\_return logical returning\_yards\_per\_punt\_return returning\_yards\_per\_return logical punting\_avg\_punt\_return\_yards logical logical punting\_fair\_catches punting\_gross\_avg\_punt\_yards logical punting\_long\_punt logical punting\_net\_avg\_punt\_yards logical punting\_punt\_returns logical punting\_punt\_return\_yards logical punting\_punts logical logical punting\_punts\_blocked punting punts blocked pct logical punting\_punts\_inside10 logical punting\_punts\_inside10pct logical logical punting\_punts\_inside20 punting\_punts\_inside20pct logical logical punting\_punt\_yards punting\_team\_games\_played logical punting\_touchback\_pct logical punting\_touchbacks logical logical miscellaneous\_first\_downs miscellaneous\_first\_downs\_passing logical miscellaneous first downs penalty logical miscellaneous\_first\_downs\_per\_game logical miscellaneous first downs rushing logical miscellaneous\_fourth\_down\_attempts logical miscellaneous fourth down conv pct logical miscellaneous fourth down convs logical miscellaneous fumbles lost logical miscellaneous\_possession\_time\_seconds logical miscellaneous redzone efficiency pct logical logical miscellaneous\_redzone\_field\_goal\_pct miscellaneous\_redzone\_scoring\_pct logical miscellaneous\_redzone\_touchdown\_pct logical espn\_cfb\_scoreboard 117

miscellaneous_third_down_attempts	logical
miscellaneous_third_down_conv_pct	logical
miscellaneous_third_down_convs	logical
miscellaneous_total_giveaways	logical
miscellaneous_total_penalties	logical
miscellaneous_total_penalty_yards	logical
miscellaneous_total_takeaways	logical
miscellaneous_total_drives	logical
miscellaneous_turn_over_differential	logical
team_id	character
team_guid	character
team_uid	character
team_sdr	character
team_slug	character
team_location	character
team_name	character
team_nickname	character
team_abbreviation	character
team_display_name	character
team_short_display_name	character
team_color	character
team_alternate_color	character
is_active	logical
is_all_star	logical
logo_href	character
logo_dark_href	character

# Author(s)

Saiem Gilani

# Examples

```
try(espn_cfb_player_stats(athlete_id = 530308, year = 2013))
try(espn_cfb_player_stats(athlete_id = 4360799, year = 2022))
```

espn\_cfb\_scoreboard

**ESPN Scoreboard** 

# Description

# **ESPN Scoreboard**

Get live scoreboard data from ESPN or look up the college football schedule for a given season ESPN Schedule

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#### Usage

```
espn_cfb_scoreboard(date = NULL)

espn_cfb_schedule(
   year = NULL,
   week = NULL,
   season_type = NULL,
   groups = NULL,
   limit = 500
)
```

#### **Arguments**

```
date (Integer required - YYYYMMDD): Date to pull

year (int): Used to define different seasons. 2002 is the earliest available season.

week (int): Week of the schedule.

season_type (string): "regular", "postseason", "off-season", or "both".

groups (string): Used to define different divisions. FBS or FCS.
```

limit (int): number of records to return, default: 500.

#### Value

```
espn_cfb_scoreboard() & espn_cfb_schedule() - A data frame with 33 or 54 variables de-
pending on if there are completed games: shared variables
matchup: character. Long matchup description with full team names (Utah Utes at UCLA Bruins).
matchup_short: character. Short matchup description with team abbreviations (UTAH @ UCLA).
season: integer. Season of the game.
type: character. Season type of the game in CFBD format.
slug: character. Season type of the game in ESPN format.
game_id: character. Referencing game ID.
game_uid: character.
game_date: character. Game date.
attendance: integer. Reported attendance at the game.
play_by_play_available: logical
home_team_name: character. Home team mascot name (Sun Devils).
home_team_logo: character. Home team logo url.
home_team_abb: character. Home team abbreviation (ASU).
home_team_id: character. Home team ID.
home_team_location: character. Home team name (Arizona State).
home_team_full: character. Home team full name (Arizona State Sun Devils).
home_team_color: character. Home team color.
```

home\_score: integer. Home team points. home\_win: integer. 1 if home team won, 0 if home team lost, NA if game is unfinished home\_record: character Home team record. away\_team\_name: character. Away team mascot name (Sun Devils). away\_team\_logo: character. Away team logo url. away\_team\_abb: **character.** Away team abbreviation (ASU). away\_team\_id: **character.** Away team ID. away\_team\_location: character. Away team name (Arizona State). away\_team\_full: character. Away team full name (Arizona State Sun Devils). away\_team\_color: character. Away team color. away\_score: integer. Away team points. away\_win: integer. 1 if away team won, 0 if home team lost, NA if game is unfinished away\_record: **character** Away team record. status\_name: character. Status of the game start\_date: character. Game date. Unique variables when there are completed games broadcast\_market: **character.** Broadcast market (typically "national" or NA) broadcast\_name: character. Broadcast channel i.e. ESPN, ABC, FOX passing\_leader\_yards: numeric. Passing yards of game's passing leader passing\_leader\_stat: character. Stat line of game's passing leader passing\_leader\_name: character. Name of game's passing leader passing\_leader\_shortname: character. First initial and last name of game's passing leader passing\_leader\_headshot: character. Headshot url of game's passing leader passing\_leader\_team\_id: character. Team ID of game's passing leader passing\_leader\_pos: character. Position of game's passing leader rushing\_leader\_yards: numeric. Passing yards of game's rushing leader rushing\_leader\_stat: character. Stat line of game's rushing leader rushing\_leader\_name: character. Name of game's rushing leader rushing\_leader\_shortname: character. First initial and last name of game's rushing leader rushing\_leader\_headshot: **character.** Headshot url of game's rushing leader rushing\_leader\_team\_id: character. Team ID of game's rushing leader rushing\_leader\_pos: character. Position of game's rushing leader receiving\_leader\_yards: **numeric.** Passing yards of game's receiving leader receiving\_leader\_stat: character. Stat line of game's receiving leader receiving\_leader\_name: character. Name of game's receiving leader receiving\_leader\_shortname: character. First initial and last name of game's receiving leader receiving\_leader\_headshot: character. Headshot url of game's receiving leader

```
receiving_leader_team_id: character. Team ID of game's receiving leader
receiving_leader_pos: character. Position of game's receiving leader
espn_cfb_schedule() - A data frame with 8 variables:
matchup: character. .
matchup_short: character. .
season: integer. .
type: character. .
slug: character. .
game_id: character. .
game_uid: character. .
game_date: Date. .
attendance: integer. .
date_valid: logical. .
play_by_play_available: logical. .
home_team_name: character. .
home_team_logo: character. .
home_team_abb: character. .
home_team_id: character. .
home_team_location: character. .
home_team_full: character. .
home_team_color: character. .
home_score: integer. .
home_win: integer. .
home_record: character. .
away_team_name: character. .
away_team_logo: character. .
away_team_abb: character. .
away_team_id: character. .
away_team_location: character. .
away_team_full: character. .
away_team_color: character. .
away_score: integer. .
away_win: integer. .
away_record: character. .
status_name: character. .
start_date: character. .
highlights: logical. .
game_date_time: datetime. .
```

# **Examples**

```
try(espn_cfb_scoreboard())
try(espn_cfb_schedule(2021, week = 8))
```

espn\_cfb\_team\_stats

Get ESPN college football team stats data

#### **Description**

#### Get ESPN college football team stats data

#### Usage

```
espn_cfb_team_stats(team_id, year, season_type = "regular", total = FALSE)
```

# Arguments

team\_id Team ID year Year

season\_type (character, default: regular): Season type - regular or postseason

total (boolean, default: FALSE): Totals

#### Value

Returns a tibble with the following columns:

col name types team\_id character team\_guid character team\_uid character  $team\_sdr$ character team slug character team\_location character team\_name character team\_nickname character team\_abbreviation character team\_display\_name character team\_short\_display\_name character team\_color character team\_alternate\_color character is\_active logical logical is\_all\_star

logo\_href character logo\_dark\_href character general fumbles numeric general\_fumbles\_lost numeric general\_fumbles\_forced numeric general\_fumbles\_recovered numeric general\_fumbles\_touchdowns numeric general\_games\_played numeric general\_offensive\_two\_pt\_returns numeric general\_offensive\_fumbles\_touchdowns numeric general\_defensive\_fumbles\_touchdowns numeric passing\_avg\_gain numeric passing\_completion\_pct numeric passing\_completions numeric passing\_espnqb\_rating numeric passing\_interception\_pct numeric passing\_interceptions numeric passing\_long\_passing numeric passing\_misc\_yards numeric passing\_net\_passing\_yards numeric passing\_net\_passing\_yards\_per\_game numeric passing\_net\_total\_yards numeric passing\_net\_yards\_per\_game numeric passing\_passing\_attempts numeric passing\_passing\_big\_plays numeric passing passing first downs numeric passing\_passing\_fumbles numeric passing\_passing\_fumbles\_lost numeric passing\_passing\_touchdown\_pct numeric passing\_passing\_touchdowns numeric passing\_passing\_yards numeric passing\_passing\_yards\_after\_catch numeric passing\_passing\_yards\_at\_catch numeric numeric passing\_passing\_yards\_per\_game passing\_qb\_rating numeric passing\_sacks numeric passing\_sack\_yards\_lost numeric passing\_team\_games\_played numeric passing\_total\_offensive\_plays numeric passing\_total\_points numeric passing\_total\_points\_per\_game numeric passing\_total\_touchdowns numeric passing total yards numeric passing\_total\_yards\_from\_scrimmage numeric passing\_two\_point\_pass\_convs numeric numeric passing\_two\_pt\_pass passing\_two\_pt\_pass\_attempts numeric passing\_yards\_from\_scrimmage\_per\_game numeric

passing\_yards\_per\_completion numeric passing\_yards\_per\_game numeric passing\_yards\_per\_pass\_attempt numeric passing\_net\_yards\_per\_pass\_attempt numeric passing\_quarterback\_rating numeric rushing\_avg\_gain numeric rushing espnrb rating numeric rushing\_long\_rushing numeric rushing misc yards numeric rushing\_net\_total\_yards numeric rushing\_net\_yards\_per\_game numeric rushing\_rushing\_attempts numeric rushing\_rushing\_big\_plays numeric rushing\_rushing\_first\_downs numeric rushing\_rushing\_fumbles numeric rushing\_rushing\_fumbles\_lost numeric rushing\_rushing\_touchdowns numeric rushing\_rushing\_yards numeric rushing\_rushing\_yards\_per\_game numeric rushing stuffs numeric rushing\_stuff\_yards\_lost numeric rushing team games played numeric rushing\_total\_offensive\_plays numeric rushing\_total\_points numeric rushing total points per game numeric rushing total touchdowns numeric rushing\_total\_yards numeric rushing\_total\_yards\_from\_scrimmage numeric rushing\_two\_point\_rush\_convs numeric rushing\_two\_pt\_rush numeric rushing\_two\_pt\_rush\_attempts numeric rushing\_yards\_from\_scrimmage\_per\_game numeric rushing\_yards\_per\_game numeric rushing\_yards\_per\_rush\_attempt numeric receiving\_avg\_gain numeric receiving\_espnwr\_rating numeric receiving long reception numeric receiving\_misc\_yards numeric receiving net total yards numeric receiving\_net\_yards\_per\_game numeric receiving\_receiving\_big\_plays numeric receiving receiving first downs numeric receiving receiving fumbles numeric receiving\_receiving\_fumbles\_lost numeric receiving receiving targets numeric receiving\_receiving\_touchdowns numeric receiving\_receiving\_yards numeric receiving\_receiving\_yards\_after\_catch numeric

receiving_receiving_yards_at_catch	numeric
receiving_receiving_yards_per_game	numeric
receiving_receptions	numeric
receiving_team_games_played	numeric
receiving_total_offensive_plays	numeric
receiving_total_points	numeric
receiving_total_points_per_game	numeric
receiving_total_touchdowns	numeric
receiving_total_yards	numeric
receiving_total_yards_from_scrimmage	numeric
receiving_two_point_rec_convs	numeric
receiving_two_pt_reception	numeric
receiving_two_pt_reception_attempts	numeric
receiving_yards_from_scrimmage_per_game	numeric
receiving_yards_per_game	numeric
receiving_yards_per_reception	numeric
defensive_assist_tackles	numeric
defensive_avg_interception_yards	numeric
defensive_avg_sack_yards	numeric
defensive_avg_stuff_yards	numeric
defensive_blocked_field_goal_touchdowns	numeric
defensive_blocked_punt_touchdowns	numeric
defensive_defensive_touchdowns	numeric
defensive hurries	numeric
defensive kicks blocked	numeric
defensive_long_interception	numeric
defensive misc touchdowns	numeric
defensive_passes_batted_down	numeric
defensive_passes_defended	numeric
defensive_two_pt_returns	numeric
defensive_sacks	numeric
defensive_sack_yards	numeric
defensive_safeties	numeric
defensive solo tackles	numeric
defensive_stuffs	numeric
defensive_stuff_yards	numeric
defensive_tackles_for_loss	numeric
defensive_tackies_for_loss defensive_team_games_played	
defensive_total_tackles	numeric numeric
defensive_total_tackies defensive_yards_allowed	numeric
defensive_paids_allowed defensive_points_allowed	numeric
defensive_points_anowed defensive_one_pt_safeties_made	numeric
-	
defensive_interceptions_interceptions	numeric
defensive_interceptions_interception_touchdowns	numeric
defensive_interceptions_interception_yards	numeric
kicking_avg_kickoff_return_yards	numeric
kicking_avg_kickoff_yards	numeric
kicking_extra_point_attempts	numeric

kicking\_extra\_point\_pct numeric kicking\_extra\_points\_blocked numeric kicking extra points blocked pct numeric kicking\_extra\_points\_made numeric kicking\_fair\_catches numeric kicking\_fair\_catch\_pct numeric kicking\_field\_goal\_attempts numeric kicking field goal attempts 1 19 numeric kicking field goal attempts20 29 numeric kicking\_field\_goal\_attempts30\_39 numeric kicking\_field\_goal\_attempts40\_49 numeric kicking\_field\_goal\_attempts50\_59 numeric kicking\_field\_goal\_attempts60\_99 numeric kicking\_field\_goal\_attempts50 numeric kicking\_field\_goal\_attempt\_yards numeric kicking\_field\_goal\_pct numeric kicking\_field\_goals\_blocked numeric kicking\_field\_goals\_blocked\_pct numeric kicking\_field\_goals\_made numeric kicking field goals made1 19 numeric kicking\_field\_goals\_made20\_29 numeric kicking field goals made30 39 numeric kicking\_field\_goals\_made40\_49 numeric kicking field goals made 50 59 numeric kicking field goals made60 99 numeric kicking field goals made50 numeric kicking\_field\_goals\_made\_yards numeric kicking field goals missed yards numeric kicking\_kickoff\_returns numeric kicking\_kickoff\_return\_touchdowns numeric kicking\_kickoff\_return\_yards numeric kicking\_kickoffs numeric kicking\_kickoff\_yards numeric kicking\_long\_field\_goal\_attempt numeric kicking\_long\_field\_goal\_made numeric kicking\_long\_kickoff numeric kicking team games played numeric kicking\_total\_kicking\_points numeric kicking touchback pct numeric kicking\_touchbacks numeric returning def fumble returns numeric returning def fumble return yards numeric returning fumble recoveries numeric returning\_fumble\_recovery\_yards numeric returning kick return fair catches numeric returning\_kick\_return\_fair\_catch\_pct numeric returning\_kick\_return\_fumbles numeric returning\_kick\_return\_fumbles\_lost numeric

returning_kick_returns	numeric
returning_kick_return_touchdowns	numeric
returning_kick_return_yards	numeric
returning_long_kick_return	numeric
returning_long_punt_return	numeric
returning_misc_fumble_returns	numeric
returning_misc_fumble_return_yards	numeric
returning_opp_fumble_recoveries	numeric
returning_opp_fumble_recovery_yards	numeric
returning_opp_special_team_fumble_returns	numeric
returning_opp_special_team_fumble_return_yards	numeric
returning_punt_return_fair_catches	numeric
returning_punt_return_fair_catch_pct	numeric
returning_punt_return_fumbles	numeric
returning_punt_return_fumbles_lost	numeric
returning_punt_returns	numeric
returning_punt_returns_started_inside_the10	numeric
returning_punt_returns_started_inside_the20	numeric
returning_punt_return_touchdowns	numeric
returning_punt_return_yards	numeric
returning_special_team_fumble_returns	numeric
returning_special_team_fumble_return_yards	numeric
returning_team_games_played	numeric
returning_yards_per_kick_return	numeric
returning_yards_per_punt_return	numeric
returning_yards_per_return	numeric
punting_avg_punt_return_yards	numeric
punting_fair_catches	numeric
punting_gross_avg_punt_yards	numeric
punting_long_punt	numeric
punting_net_avg_punt_yards	numeric
punting_punt_returns	numeric
punting_punt_return_yards	numeric
punting_punts	numeric
punting_punts punting_punts_blocked	numeric
punting_punts_blocked_pct	numeric
punting_punts_inside10	numeric
punting_punts_inside10pct	numeric
punting_punts_inside20	numeric
punting_punts_inside20pct	numeric
punting_punt_yards	numeric
punting_team_games_played	numeric
punting_touchback_pct	numeric
punting_touchbacks	numeric
scoring_defensive_points	numeric
scoring_field_goals	numeric
scoring_kick_extra_points	numeric
scoring_misc_points	numeric

scoring_passing_touchdowns	numeric
scoring_receiving_touchdowns	numeric
scoring_return_touchdowns	numeric
scoring_rushing_touchdowns	numeric
scoring_total_points	numeric
scoring_total_points_per_game	numeric
scoring_total_touchdowns	numeric
scoring_total_two_point_convs	numeric
scoring_two_point_pass_convs	numeric
scoring_two_point_rec_convs	numeric
scoring_two_point_rush_convs	numeric
scoring_one_pt_safeties_made	numeric
miscellaneous_first_downs	numeric
miscellaneous_first_downs_passing	numeric
miscellaneous_first_downs_penalty	numeric
miscellaneous_first_downs_per_game	numeric
miscellaneous_first_downs_rushing	numeric
miscellaneous_fourth_down_attempts	numeric
miscellaneous_fourth_down_conv_pct	numeric
miscellaneous_fourth_down_convs	numeric
miscellaneous_fumbles_lost	numeric
miscellaneous_possession_time_seconds	numeric
miscellaneous_redzone_efficiency_pct	numeric
miscellaneous_redzone_field_goal_pct	numeric
miscellaneous_redzone_scoring_pct	numeric
miscellaneous_redzone_touchdown_pct	numeric
miscellaneous_third_down_attempts	numeric
miscellaneous_third_down_conv_pct	numeric
miscellaneous_third_down_convs	numeric
miscellaneous_total_giveaways	numeric
miscellaneous_total_penalties	numeric
miscellaneous_total_penalty_yards	numeric
miscellaneous_total_takeaways	numeric
miscellaneous_total_drives	numeric
miscellaneous_turn_over_differential	numeric

# Author(s)

Saiem Gilani

# Examples

try(espn\_cfb\_team\_stats(team\_id = 52, year = 2020))

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espn\_metrics

**ESPN Metrics** 

#### **Description**

#### **ESPN Metrics**

Get win probability chart data from ESPN Graciously contributed by MrCaseB:

#### Usage

```
espn_metrics_wp(game_id)
```

#### **Arguments**

game\_id (Integer required): Game ID filter for querying a single game Can be found using the cfbd\_game\_info() function

#### Value

```
espn_metrics_wp() - A data frame with 5 variables:
game_id: character. Referencing game ID (should be same as game_id from other functions).
play_id: character. Referencing play ID.
seconds_left: integer. DEPRECATED. Seconds left in the game.
home_win_percentage: double. The probability of the home team winning the game.
away_win_percentage: double. The probability of the away team winning the game (calculated as 1 - home_win_percentage - tie_percentage).
tie_percentage: double. The probability of the game ending the final period in a tie.
```

# **Examples**

```
try(espn_metrics_wp(game_id = 401628369))
```

espn\_ratings\_fpi 129

espn\_ratings\_fpi

#### **ESPN FPI Ratings**

## **Description**

Get FPI historical rating data (most recent of each year)

#### Usage

```
espn_ratings_fpi(year = 2019)
```

#### **Arguments**

year

Year

#### **Details**

Adapted from sabinanalytic's fork of the cfbfastR repo

#### Value

```
A data frame with 20 variables:
```

year: integer. Season of the Football Power Index (FPI) Rating.

team\_id: integer. Unique ESPN team ID - team\_id.

team\_name: character. Team Name.

team\_abbreviation: character. Team abbreviation.

fpi: character. Football Power Index (FPI) Rating.

fpi\_rk: character. Football Power Index (FPI) Rank.

trend: character. Football Power Index (FPI) ranking trend.

 $\label{projected_wins: character.} Projected\ Win\ total\ for\ the\ season.$ 

projected\_losses: character. Projected Loss total for the season.

win\_out\_pct: double. Probability the team wins out.

win\_6\_pct: **double.** Probability the team wins at least six games.

win\_division\_pct: double. Probability the team wins at their division.

playoff\_pct: **double.** Probability the team reaches the playoff.

nc\_game\_pct: double. Probability the team reaches the national championship game.

nc\_win\_pct: double. Probability the team wins the national championship game.

win\_conference\_pct: double. Probability the team wins their conference game.

w: integer. Wins on the season.

1: integer. Losses on the season.

t: character. Ties on the season.

load\_cfb\_pbp

#### **Examples**

```
try(espn_ratings_fpi(year=2019))
```

load\_cfb\_pbp

Load cleaned play-by-play from the data repo

#### **Description**

helper that loads multiple seasons from the data repo either into memory or writes it into a db using some forwarded arguments in the dots

#### Usage

```
load_cfb_pbp(
  seasons = most_recent_cfb_season(),
  ...,
  dbConnection = NULL,
  tablename = NULL
)
```

#### **Arguments**

seasons A vector of 4-digit years associated with given College Football seasons.

... Additional arguments passed to an underlying function that writes the season

data into a database (used by update\_cfb\_db())

dbConnection A DBIConnection object, as returned by DBI::dbConnect() tablename The name of the play by play data table within the database

#### Value

Returns a tibble with play-by-play data

#### **Source**

```
CFB Play-by-Play Data releases can be found here: https://github.com/sportsdataverse/sportsdataverse-data/releases/tag/cfbfastR_cfb_pbp
```

#### See Also

```
Issues with this data should be filed here: https://github.com/sportsdataverse/cfbfastR-data update_cfb_db()

Other loaders: load_cfb_rosters(), load_cfb_schedules(), load_cfb_teams(), update_cfb_db()
```

load\_cfb\_rosters 131

load\_cfb\_rosters

Load College Football Rosters

#### **Description**

Loads team rosters for specified seasons. This function wraps the cfbd\_team\_roster() function sourced from the College Football Data API.

#### Usage

```
load_cfb_rosters(seasons = most_recent_cfb_season())
```

#### **Arguments**

seasons

a numeric vector of seasons to return, defaults to returning this year's data if it is September or later. If set to TRUE, will return all available data.

#### Value

A tibble of season-level roster data.

#### See Also

```
cfbd_team_roster()
```

Issues with this data should be filed here: https://github.com/sportsdataverse/cfbfastR-data Other loaders: load\_cfb\_pbp(), load\_cfb\_schedules(), load\_cfb\_teams(), update\_cfb\_db()

# **Examples**

```
try(load_cfb_rosters(2024))
```

load\_cfb\_schedules

Load CFB Game/Schedule Data from data repo

# Description

This function returns game/schedule information for the specified season(s). This function wraps the cfbd\_game\_info() function sourced from the College Football Data API.

# Usage

```
load_cfb_schedules(seasons = most_recent_cfb_season())
```

load\_cfb\_teams

#### **Arguments**

seasons

a numeric vector of seasons to return, default TRUE returns all available data.

#### Value

A tibble of game information for past and/or future games.

#### See Also

```
cfbd_game_info()
```

```
Issues with this data should be filed here: https://github.com/sportsdataverse/cfbfastR-data Other loaders: load_cfb_pbp(), load_cfb_rosters(), load_cfb_teams(), update_cfb_db()
```

# Examples

```
try(load_cfb_schedules(2024))
```

load\_cfb\_teams

Load CFB team info from the data repo

#### **Description**

Loads team information including colors and logos - useful for plots! This function wraps the cfbd\_team\_info() function sourced from the College Football Data API.

#### Usage

```
load_cfb_teams(fbs_only = TRUE)
```

### **Arguments**

fbs\_only

if TRUE, returns only FBS teams, otherwise returns all teams in the dataset

#### Value

A tibble of team-level image URLs and hex color codes.

# See Also

```
cfbd_team_info()
```

```
Issues with this data should be filed here: https://github.com/sportsdataverse/cfbfastR-data Other loaders: load_cfb_pbp(), load_cfb_rosters(), load_cfb_schedules(), update_cfb_db()
```

rds\_from\_url 133

# Examples

```
try(load_cfb_teams())
```

 $rds\_from\_url$ 

Load .rds file from a remote connection

# Description

Load .rds file from a remote connection

# Usage

```
rds_from_url(url)
```

# Arguments

url

a character url

#### Value

a dataframe as created by readRDS()

 $register\_cfbd$ 

**CFBD API Key Registration** 

# Description

Save your API Key as a system environment variable CFBD\_API\_KEY

# Usage

```
cfbd_key()
has_cfbd_key()
cfbd_api_key_info()
```

134 update\_cfb\_db

#### **Details**

To get access to an API key, follow the instructions at https://collegefootballdata.com/key

**Using the key:** You can save the key for consistent usage by adding CFBD\_API\_KEY=YOUR-API-KEY-HERE to your .Renviron file (easily accessed via usethis::edit\_r\_environ()). Run usethis::edit\_r\_environ(), a new script will pop open named .Renviron, **THEN** paste the following in the new script that pops up (without quotations)

```
CFBD_API_KEY = YOUR-API-KEY-HERE
```

Save the script and restart your RStudio session, by clicking Session (in between Plots and Build) and click Restart R (there also exists the shortcut Ctrl + Shift + F10 to restart your session).

If set correctly, from then on you should be able to use any of the cfbd\_ functions without any other changes.

**For less consistent usage:** At the beginning of every session or within an R environment, save your API key as the environment variable CFBD\_API\_KEY (**with** quotations) using a command like the following.

```
Sys.setenv(CFBD_API_KEY = "YOUR-API-KEY-HERE")
```

Get information about your API key, including your Patreon level and usage limits.

#### Value

Returns a data frame with 2 variables:

```
col_name types
patron_level integer
remaining calls integer
```

update\_cfb\_db

Update or create a cfbfastR play-by-play database

#### **Description**

update\_cfb\_db() updates or creates a database with cfbfastR play by play data of all completed games since 2014.

### Usage

```
update_cfb_db(
  dbdir = getOption("cfbfastR.dbdirectory", default = "."),
  dbname = "cfb_pbp_db",
  tblname = "cfbfastR_pbp",
  force_rebuild = FALSE,
  db_connection = NULL
)
```

update\_cfb\_db

#### Arguments

dbdir Directory in which the database is or shall be located. Can also be set globally

with options(cfbfastR.dbdirectory).

dbname File name of an existing or desired SQLite database within dbdir

tblname The name of the play by play data table within the database

force\_rebuild Hybrid parameter (logical or numeric) to rebuild parts of or the complete play

by play data table within the database (please see details for further information)

db\_connection A DBIConnection object, as returned by DBI::dbConnect() (please see details

for further information)

#### **Details**

This function creates and updates a data table with the name tblname within a SQLite database (other drivers via db\_connection) located in dbdir and named dbname. The data table combines all play by play data for every available game back to the 2014 season and adds the most recent completed games as soon as they are available for cfbfastR.

The argument force\_rebuild is of hybrid type. It can rebuild the play by play data table either for the whole cfbfastR era (with force\_rebuild = TRUE) or just for specified seasons (e.g. force\_rebuild = c(2019, 2020)). Please note the following behavior:

force\_rebuild = TRUE: The data table with the name tblname will be removed completely and rebuilt from scratch. This is helpful when new columns are added during the Off-Season.

force\_rebuild = c(2019, 2020): The data table with the name tblname will be preserved and only rows from the 2019 and 2020 seasons will be deleted and re-added. This is intended to be used for ongoing seasons because ESPN's data provider can make changes to the underlying data during the week.

The parameter db\_connection is intended for advanced users who want to use other DBI drivers, such as MariaDB, Postgres or odbc. Please note that the arguments dbdir and dbname are dropped in case a db\_connection is provided but the argument tblname will still be used to write the data table into the database.

#### Value

Invisibly returns NULL. The function is called for its side effects.

#### See Also

Other loaders: load\_cfb\_pbp(), load\_cfb\_rosters(), load\_cfb\_schedules(), load\_cfb\_teams()

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