

co2-gpp-modeling-EDA

Import Libraries

```
# Load libraries
## Load a set of packages including: broom, cli, crayon, dbplyr , dplyr, dtplyr, forcats,
## googledrive, googlesheets4, ggplot2, haven, hms, httr, jsonlite, lubridate , magrittr,
## modelr, pillar, purrr, readr, readxl, reprex, rlang, rstudioapi, rvest, stringr, tibble,
## tidyr, xml2
library(tidyverse)
## to load glow500 from "Applied Logistic Regression" by D.W. Hosmer, S. Lemeshow, and R.X. Sturdivant
library(aplore3)
## provides many functions useful for data analysis, high-level graphics, and utility operations like d
library(Hmisc)
## to work with "grid" graphics
library(gridExtra)
## To generate regression results, tables, and plots
library(finalfit)
## To produces LaTeX code, HTML/CSS code and ASCII text for well-formatted tables
library(stargazer)
```

Import data from csv file

Rows: 19015 Columns: 62

```
# EDA/src/
raw_df <- read_csv("../../../data/datasets/data_monthly_v1_0.csv")
```

```
head(raw_df)
```

```
## # A tibble: 6 x 62
##   SITE_ID year month TIMESTAMP dataset SITE_IGBP LOCATION_LAT LOCATION_LONG
##   <chr>   <dbl> <dbl>      <dbl> <chr>   <chr>              <dbl>      <dbl>
## 1 AR-SLu  2010     1    201001 FLUXNET MF              -33.5      -66.5
## 2 AR-SLu  2010     2    201002 FLUXNET MF              -33.5      -66.5
## 3 AR-SLu  2010     3    201003 FLUXNET MF              -33.5      -66.5
## 4 AR-SLu  2010     4    201004 FLUXNET MF              -33.5      -66.5
## 5 AR-SLu  2010     5    201005 FLUXNET MF              -33.5      -66.5
## 6 AR-SLu  2010     6    201006 FLUXNET MF              -33.5      -66.5
## # ... with 54 more variables: TA_F <dbl>, VPD_F <dbl>, P_F <dbl>, NETRAD <dbl>,
## #   NEE_VUT_REF <dbl>, NEE_VUT_REF_QC <dbl>, NEE_CUT_REF <dbl>,
## #   NEE_CUT_REF_QC <dbl>, GPP_NT_VUT_REF <dbl>, GPP_DT_VUT_REF <dbl>,
## #   GPP_NT_CUT_REF <dbl>, GPP_DT_CUT_REF <dbl>, RECO_NT_VUT_REF <dbl>,
```

```
## # RECO_DT_VUT_REF <dbl>, RECO_NT_CUT_REF <dbl>, RECO_DT_CUT_REF <dbl>,  
## # time <chr>, ET <dbl>, 'BESS-PAR' <dbl>, 'BESS-PARdiff' <dbl>,  
## # 'BESS-RSDN' <dbl>, 'CSIF-SIFdaily' <dbl>, 'CSIF-SIFinst' <dbl>, ...
```

- SITE_ID
- SITE_IGBP
- TA_F