

firstDown

Predicting the probability of play success

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about the team.

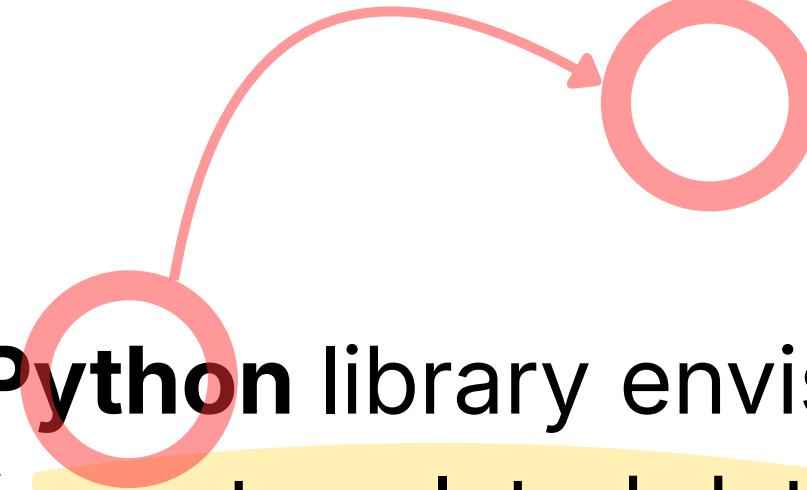


Daniel Campos
Empirics & Graphic Design

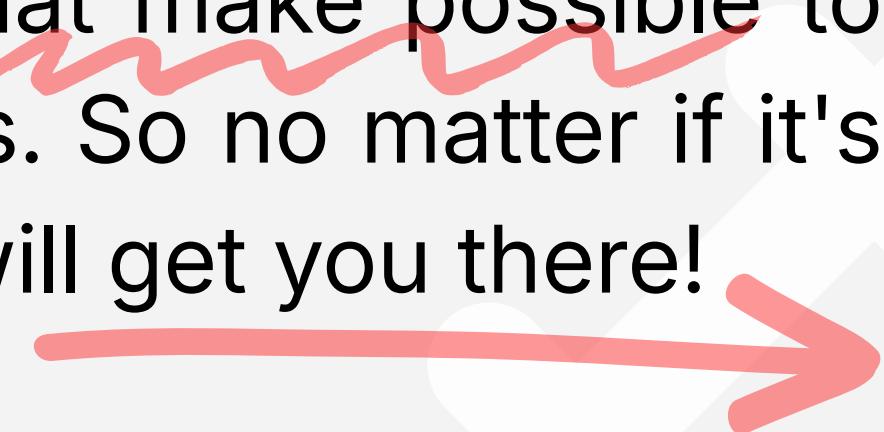


Eric Gutiérrez
Coding & Web Design

about the project.



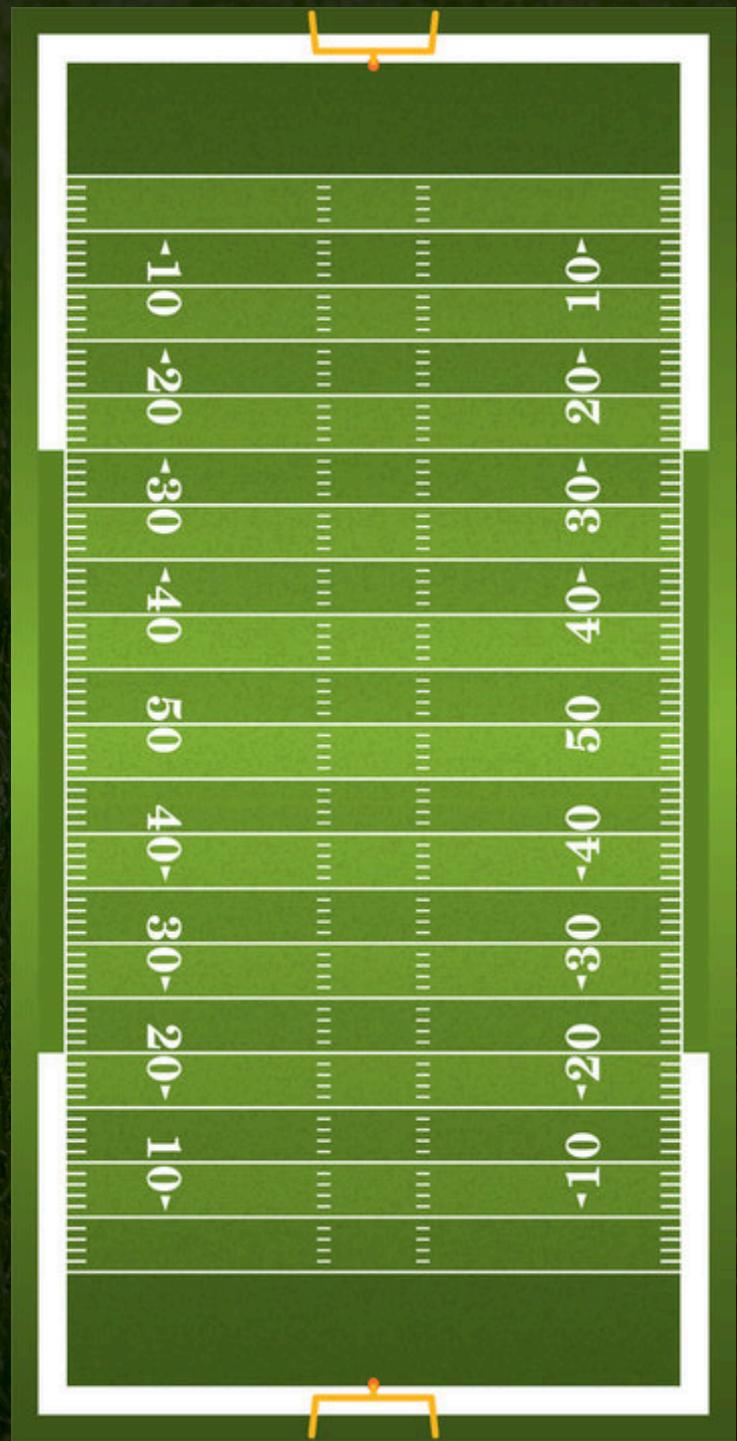
firstDown is a **Python** library envisioned to get the most out of the vast amount of sports-related data available! Although it has been designed to predict first downs (**play success**) in the NFL, its structure allows for changes and additions that make possible to perform data analysis on (virtually) any sports. So no matter if it's an extra yard, mile, goal, or point, ***firstDown*** will get you there!



brief overview of football rules.

How do you win in football

What is a first down



the library.

The structure of *firstDown* aims at making its **scaling** straightforward, enabling the **integration** of new functionalities and methods.

firstDown is organized in sublibraries as following:

Prepare the data

load_data

preprocessing

feature_engineering

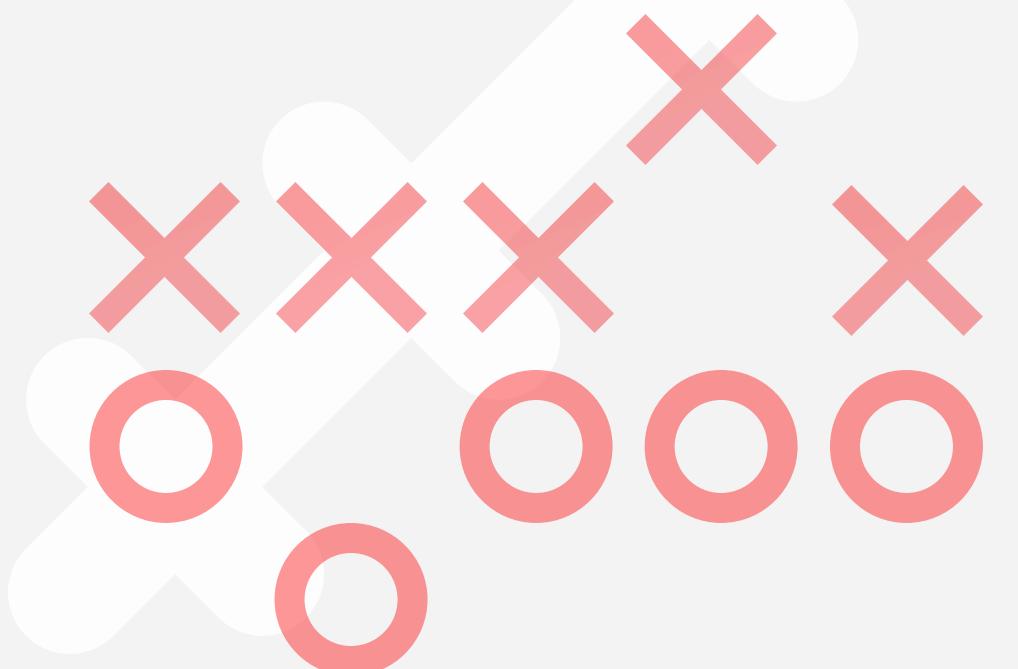
Model and predict

hyper_tuning

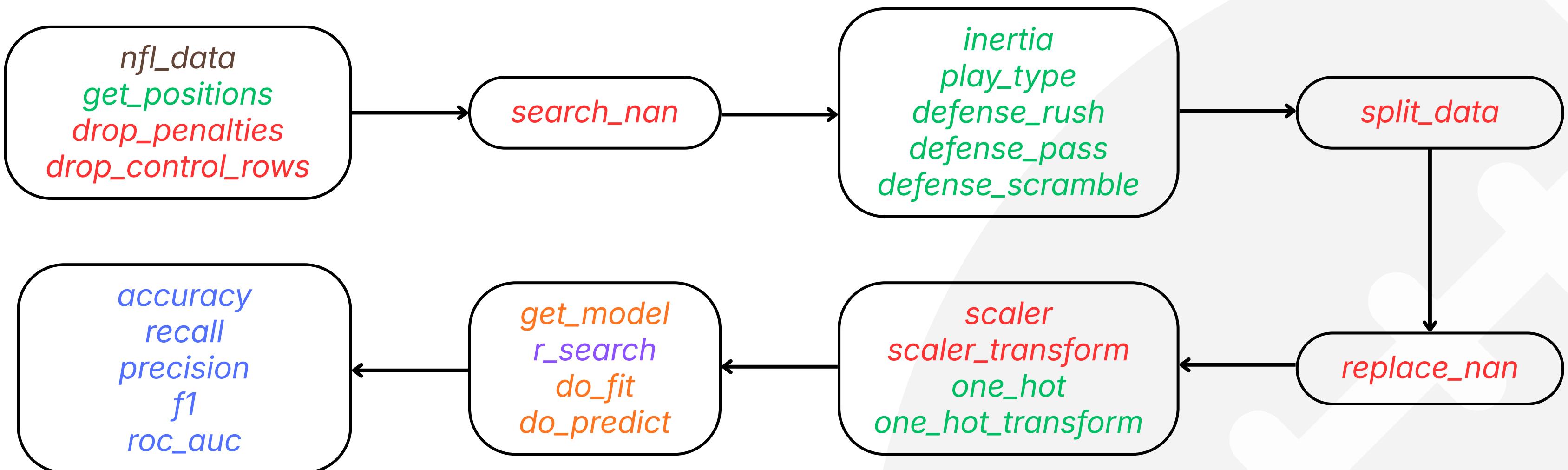
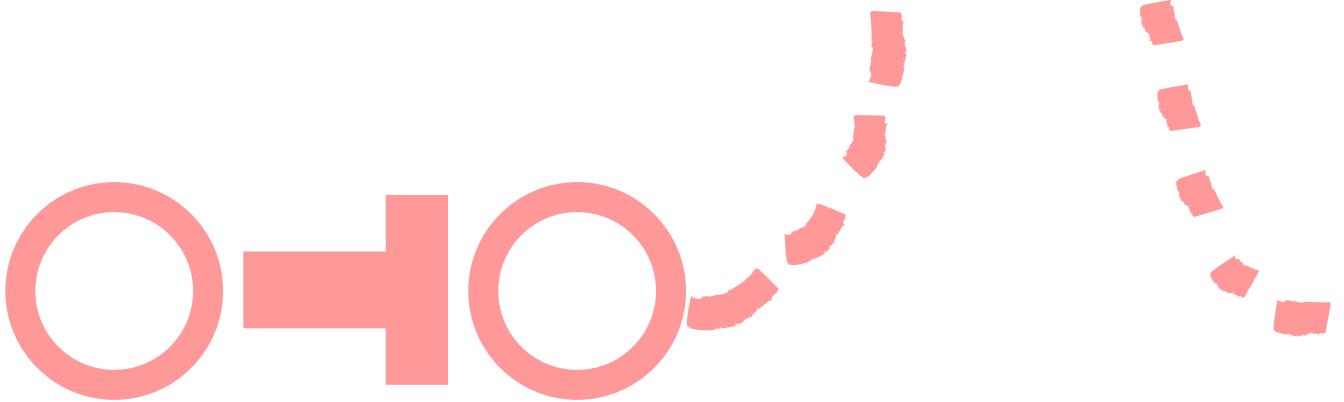
train

metrics

We also performed
several sanity checks
through unit testing!



the pipeline.



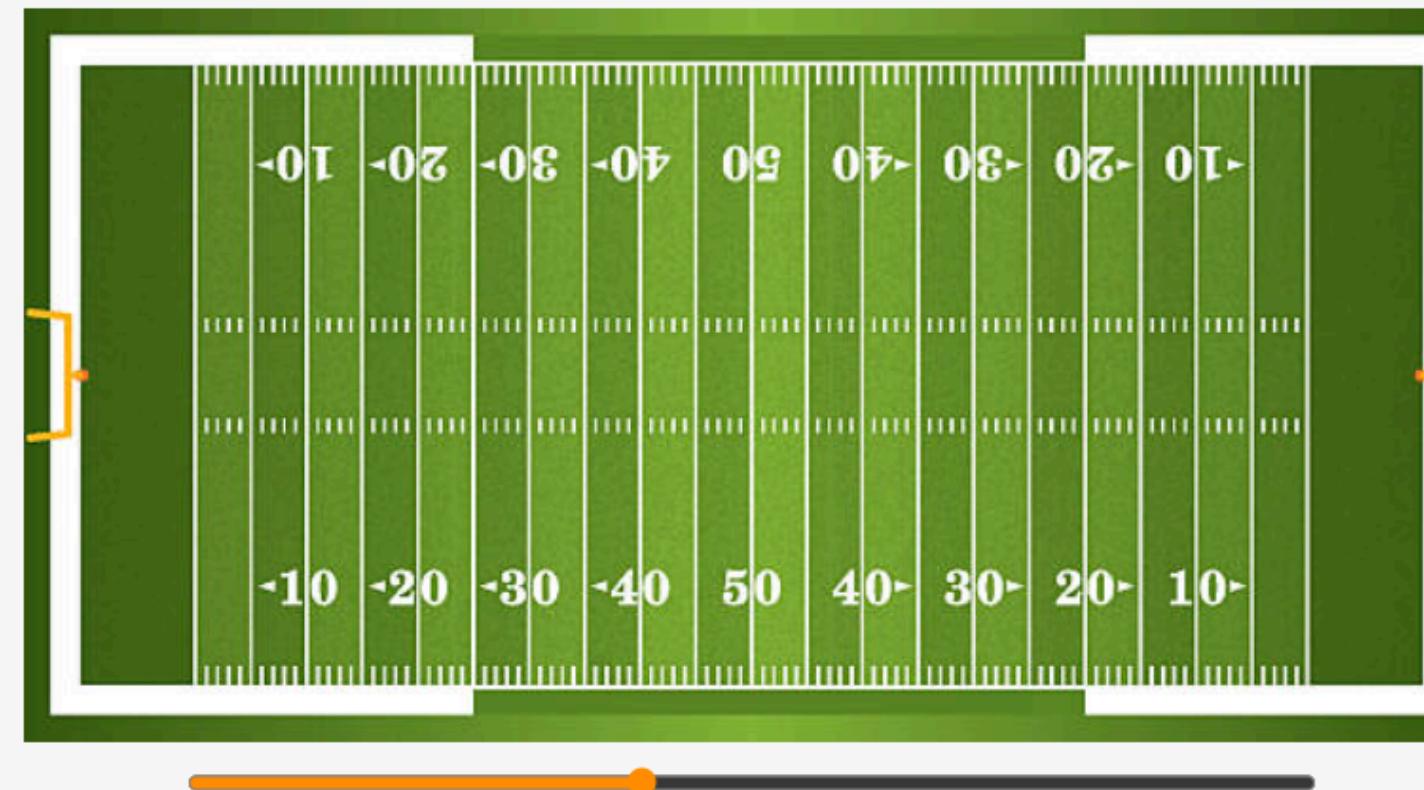
the website.

firstDown

a data analysis and modelling library for sports.

[about](#) [documentation](#) [api](#) [playground](#)

first down probability per yards to end zone.



yards to end zone: 40

first down probability.

41.04%