Project Outline

OBJECTIVE

The objective of this project is to use machine learning to predict future fantasy points in fantasy football.

This will be accomplished in two phases. The first phase will use 10 years of historic data to attempt to project total seasonal points for next year. The second phase will be used during the season to project individual players scores.

Project Requirements

For this project we need to Collect and store data, utilize machine learning to train a model and make projections based on the model.

* Collect data: Data from the previous 10 years of offensive NFL players will be collected from the ‘Pro Fantasy Focus’ website with their free API. During phase 2 data will be collected weekly on Tuesdays.
* Store Data: Data collected will be stored in an SQLite database. Can we make this web-based or localized?
* Train a model: individual models will need to be made for quarterbacks, pass catchers (TE, WR) and running backs. The model will be a regression type with normalization, most likely linear or low degree polynomial. The sklearn python package has models that can be used. The data will be split into a training set (first 8 years) a validation set (1 year) and a test set (last year). Weights and statistical decisions will be tested on the validation set and verified with the test set.
* Make projections: Projections will be used to created a hierarchy of players to draft.
* $$ Profit