

## Fantasy Football Analytics and Predictor

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The Fantasy Football Analytics and Predictor team is made up of J.D. Chamberlain, Ben LeMarc, and Michael Chen. Our project consisted of scouring the internet for football statistics, building a machine learning algorithm to analyze the stats acquired, and displaying the results on a public website. While every fan has their own opinion on how each player will perform, we wanted to analyze the data to determine what the numbers say about what results were likely going forward.

The process was a tough one to plan for as the data required was not simply in one place. In the end, we ended up with 8 different scripts for pulling information. Two of those scripts utilized an API, but the rest relied on web scraping, some of which had to visit hundreds of pages to get the necessary information. That information then needed to be combined, so that each player had all of his stats in one single place.

After the data was combined, it is run through a machine learning algorithm using several modern techniques for predicting outcomes going forward. After a base prediction was made, it was then adjusted based on the opposing defense each player would face in their upcoming games. All the data pulling and prediction algorithm scripts are placed on a hosting server where they are automatically run biweekly. The final step displays each player's stats and their resulting prediction on a web site.

47 million people play Fantasy Football, and they're all looking for the best way to gain an advantage in their fantasy football league. Since Fantasy Football is a \$18.6B market (\$6B larger than the best estimates of the NFL's yearly revenues), there is a considerable market for supplying Fantasy Football players with this information.