

# ORIE 4741 Project Proposal

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## Data set introduction

The NFL combine has a series of athletic tests that are used to measure the potential of college players before they enter the NFL. NFL teams use the results of the combine to influence their draft picks of players in the 7 round NFL draft. The data set we are using was downloaded from the pro football reference website and contains information on each players performance results from the NFL combine and draft outcome in the NFL draft from 2009-2019. This data set contains 3,477 players and 18 columns that contain information such as age, school, weight, NFL combine performance results, and draft outcome.

## Questions to explore

Our goal is to analyze player combine statistics to identify the impact of these statistics on draft order. Our main question is- What statistics are the most important when determining the order in which a player is drafted? When answering this question, we will also look into the following:

- Can we estimate draft order when grouping by the player's football position?
- For each position, what statistics are the most important when determining the draft order?
- Do the important statistics remain consistent for different time periods?

## Why are these questions important?

During the draft teams know what positions they want to fill and aim to pick the best players that are still available. However, since a team does not know the draft plan of other teams, they need to make game time decisions. When making these decisions it would be helpful to have a short list of factors they can use to estimate the draft order before making their next pick. With our analysis, teams can draft the player they are interested in before their projected draft round in the draft to ensure that another team does not select the player before them.

## How will the data set answer the question?

This data set contains different information (features) for each player and when each player was drafted. We will run a prediction model on the features to determine which set of features best predicts draft order. Teams can use these selected features to pick the best player in the appropriate round.

## Reference

NFL Combine - Performance Data: <https://www.kaggle.com/datasets/redlineracer/nfl-combine-performance-data-2009-2019?select=NFL.csv>