Stat 426 Project Proposal

1. One of the biggest questions in professional sports is if a player is worth their contract. There is a lot of risk of giving someone a big-time contract and it does not pay off. My goal is to predict the deserving player salaries based on stats of defensive players in the NFL. The reason I chose the defensive side was because the stats are measured similarly on defense compared to the offensive side where a quarterback and receiver have different stats. Also, because the number of defensive players more than doubles the offensive players. This model will find which players are worth the model and which are not.

2. So the data I will be using is from a website called pro-football-reference.com which is a statistical website for NFL stats. Two datasets from the website I will get, one with all the defensive features and one with the player contracts. I think you can grab a csv files for them, but to practice what we learned in class I will web scrape the data. The target is the salary, and I will engineer some team performance features to get another look at the player’s impact by creating a stat called Individual Points which is used in sports for football scores. There are 27 features within the two datasets, and I will probably add a couple more. These datasets are perfect for my research question because not only do I need the salary information for all the players, but I need to see the players actual performance statistically. With the number of defensive players, I will have plenty of data to train and test for an accurate model.