Capstone Project 1: (UPDATED) Project Proposal

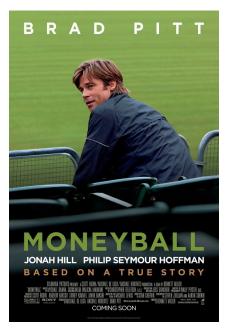


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The original motivation for this project was trying to predict if the Sacramento Kings were going to make the playoffs this year. So far, I've found some very interesting data and insights with regards to both <u>team-level</u> and individual <u>player-level</u> data that could potentially help answer this question. However, I've decided to pivot in a new direction, namely to focus on predicting an individual player's win share.

There are a few reasons for this:

- Firstly, as of today (March 29, 2019), the Sacramento Kings are in ninth place in the NBA's Western Conference. This normally wouldn't be a bad position to be in late in the season, however, the San Antonio Spurs, who are currently in eighth place are six and a half games ahead of them with only seven games left in the regular season.
 - What does this mean? That it is virtually impossible for the Kings to make the playoffs this year (<u>FiveThirtyEight</u> has the odds at <1%). While I could still theoretically continue in this direction, I think the value it would provide would be minimal at best.
- Secondly, I'm a big fan of the movie *Moneyball*, which is about how the Oakland A's used analytics to compete with (and beat) teams like the Red Sox and Yankees despite having one of the lowest payrolls in all of baseball. As I was doing my exploratory data analysis, particularly when it came to data on individual players, I kept asking myself: which players are diamonds in the rough, so to speak?

We all know players like LeBron James, Kevin Durant, and Anthony Davis, who are well-known superstars who stats back up the fact that they are for the most part the primary contributors to their teams' success. There are so many other players in the league though and I became particularly interested in trying discovering the players that may not be particularly popular with the fans but are (or at least should be) very popular with the front office personnel of NBA teams. This may be of particular value considering that for teams that don't make the playoffs, they will look towards finding players in the offseason via free agency to bolster their roster with the hopes of making the playoffs in 2019-2020.

So in summary, I am pivoting the focus of my project. Initially, I was trying to answer the following question: 'will the Sacramento Kings make the playoffs this season?'. Due to a change in circumstances and perspective, I will now focus on trying to answer the following question: can I predict an individual player's win share? By answering this question, I hope to discover deeper insights into how much player's and their individual skill sets contribute to a team's win total.