Analysis of the relationship between players' statistics and salaries in NBA

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1. **Background Information and Questions to be answered:**

The NBA has moved past Major League Baseball as the second-most popular sport in the United States and is still growing and attracting more people as cited in Wikipedia.

https://en.wikipedia.org/wiki/Sports_in_the_United_States

Moreover, across last year's season, the NBA generated about $8 billion in revenue. And the 30 teams making up the NBA have an average valuation of $1.9 billion each. And also with this growth and popularity, the average salary cap for each team has also skyrocketed.

Despite the huge revenue teams are making each year, it is important for NBA teams that they do not waste any money on unpromising players and they do not miss any promising player for some basic mistakes.

For this project, I will focus on the relationship between players' statistics of the year before they get contracts and the contacts they get. I will use data for 2017-2018 and 2018-2019 to find the best outcome.

Moreover, there is a common sense among NBA fans which states that players who score more points will get a better salary. That is why, in this project, I want to also prove the common sense because I am one of the NBA fans and by using my skills in data science and data analysis, I want to see if NBA fans are correct about it.

In this project I will answer the following questions and visualize the followings;

1- Which statistic or statistics are the best indicators(predictors) for the NBA player's salary?

2- How reliable is the machine learning model I will build to predict NBA salaries?

3- Measuring the error of the model and analyzing top 20 players with their predicted salaries and actual salaries.

Data will be used from;

www.basketball-reference.com

My client for this project;

1- Recently drafted players may use this analysis to plan accordingly and set goals to achieve a certain level of salary they dream. As a result of this analysis, these players will be able to foresee   themselves in a few years in the NBA.