

Score a Big Contract

Features that Influence NBA Salaries



Introduction

Motivation:

- Generate useful information for Klutch Sports to include in training their material

Objectives/Goals:

- Create a Linear Regression model to predict salary based on their performance statistics.
- Determine which factors are most important when predicting salary.



Methodology

Data

- Data from Basketball-Reference, ESPN, and Spotrac
- Statistics from years 2013-2020
- 1276 rows of data

Metrics

- R^2 to determine model fit
- RMSE used to determine model accuracy
- Coefficient size to determine feature magnitude

Models/Tools

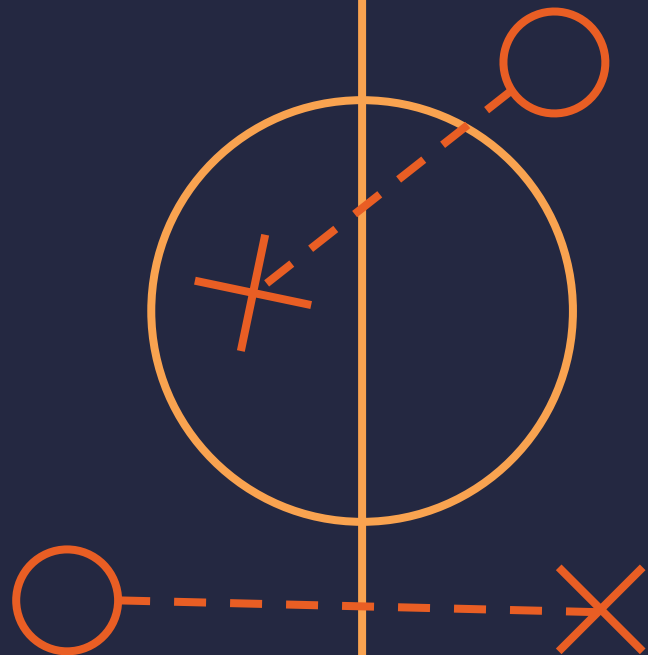
- Ridge Regression model
- Beautiful Soup
- Sklearn
- Pandas
- Seaborn

BeautifulSoup



seaborn

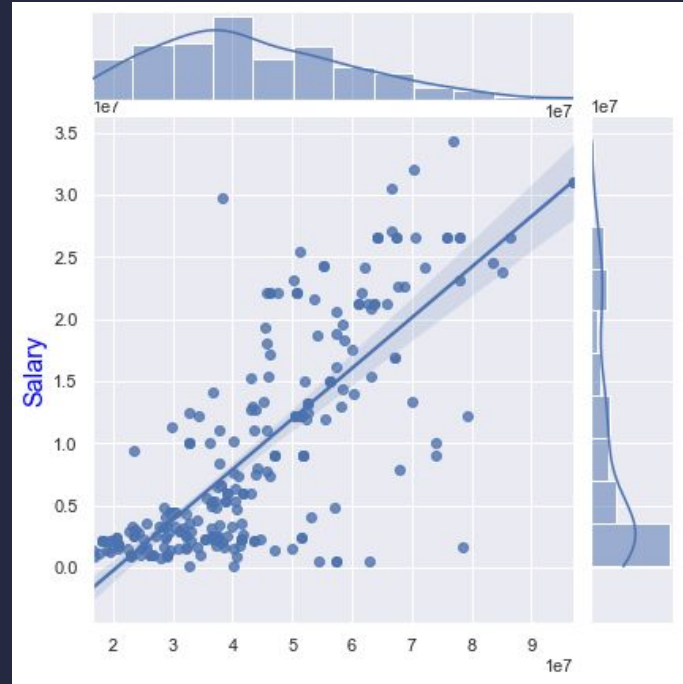




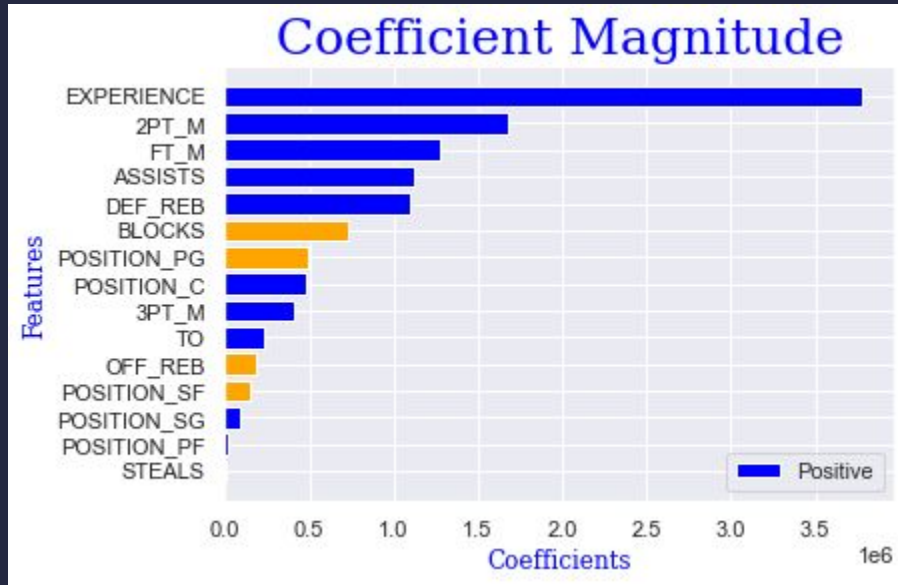
Results

Model Fit

- **Linear Regression**
 - R^2 of 0.58621
- **Ridge Regression**
 - R^2 of 0.58622
 - RMSE of $3.5969711e+7$



Results



Conclusions

What matters most?

- You can't beat experience!
- Scoring, assists, and rebounds are big factors
- Centers tend to earn more money



Examples

LeBron James:

- Model predicted a \$107M
- Actual Salary \$41.1M



Jayson Tatum:

- Model predicted a \$41.7M
- Actual Salary \$28.1M



Future Work

- **Gather more historical statistics and contract data**
- **Create models for players with different levels of experience**

