

NBA Draft Prediction

Leveraging college basketball statistics to predict the NBA draft pick Authors: Kajal Tiwary, Austin Eaton, Jackson Piccione, Abby Fremaux

GEORGETOWN UNIVERSITY

Introduction

Problem to Address

How to predict NBA draft selections using college basketball player statistics

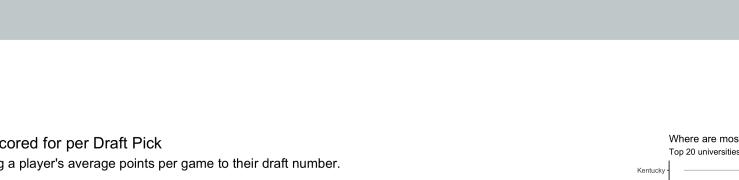
Importance

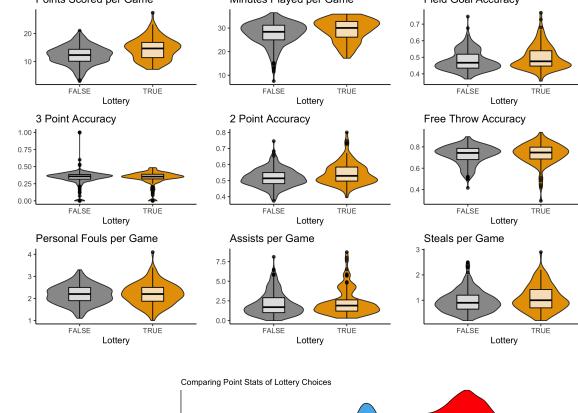
How to predict NBA draft selections using college basketball player statistics

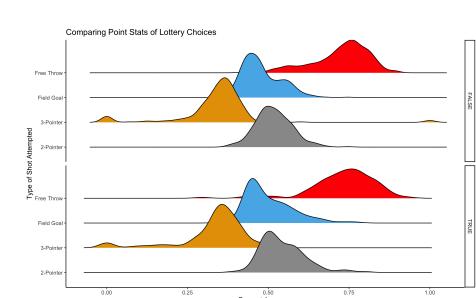
Background

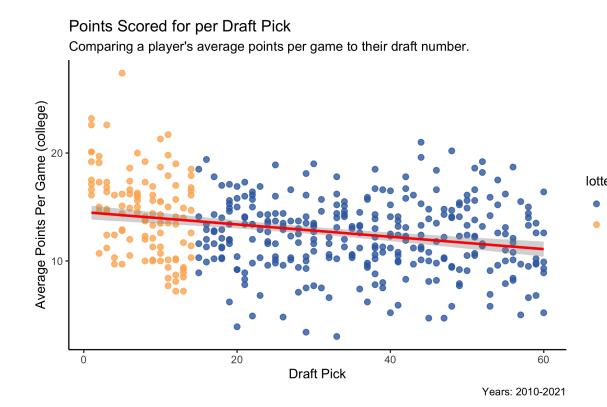
How to predict NBA draft selections

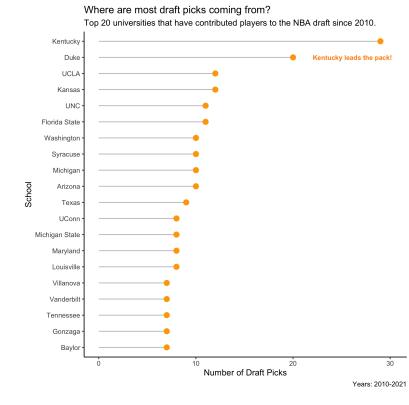
Dataset











Methods



Exploratory Analysis

To Understand the Landscape

Classification

To Predict the Lottery Selection

Regression

To Predict the Draft Pick Order

Results



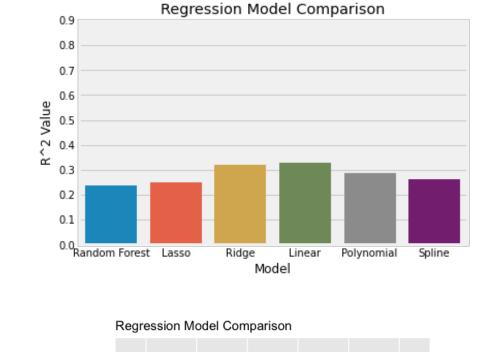
Classification Interpretation:

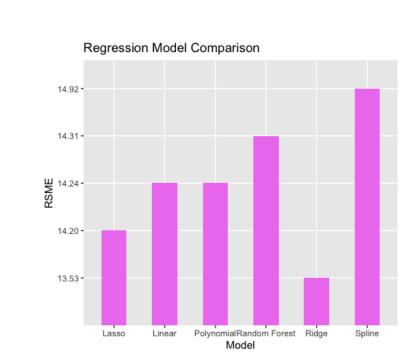
Model Approach:

- Rank and pick variables removed to avoid multicollinearity

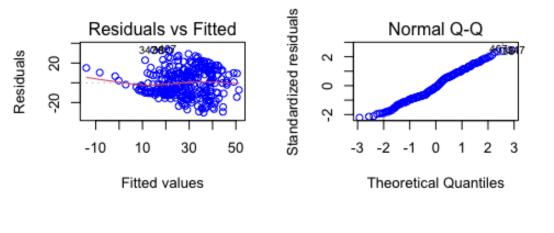
- Missing values removed
- Lottery converted to factor
- 5-fold cross validation because of data size
- Random grid search
- Hyperparameter tuning

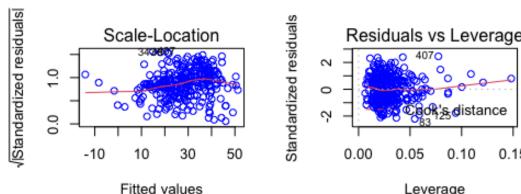
Regression Model Comparison:





Regression Interpretation:





Model Approach:

Best subset selection for OLS models only

- Six regression models run
- Most optimal model determined
- Residuals analyzed and model was re-assessed (e.g., outliers removed)

Conclusions



Future Considerations