

FIFA

Player Rating Prediction

Brian Choi



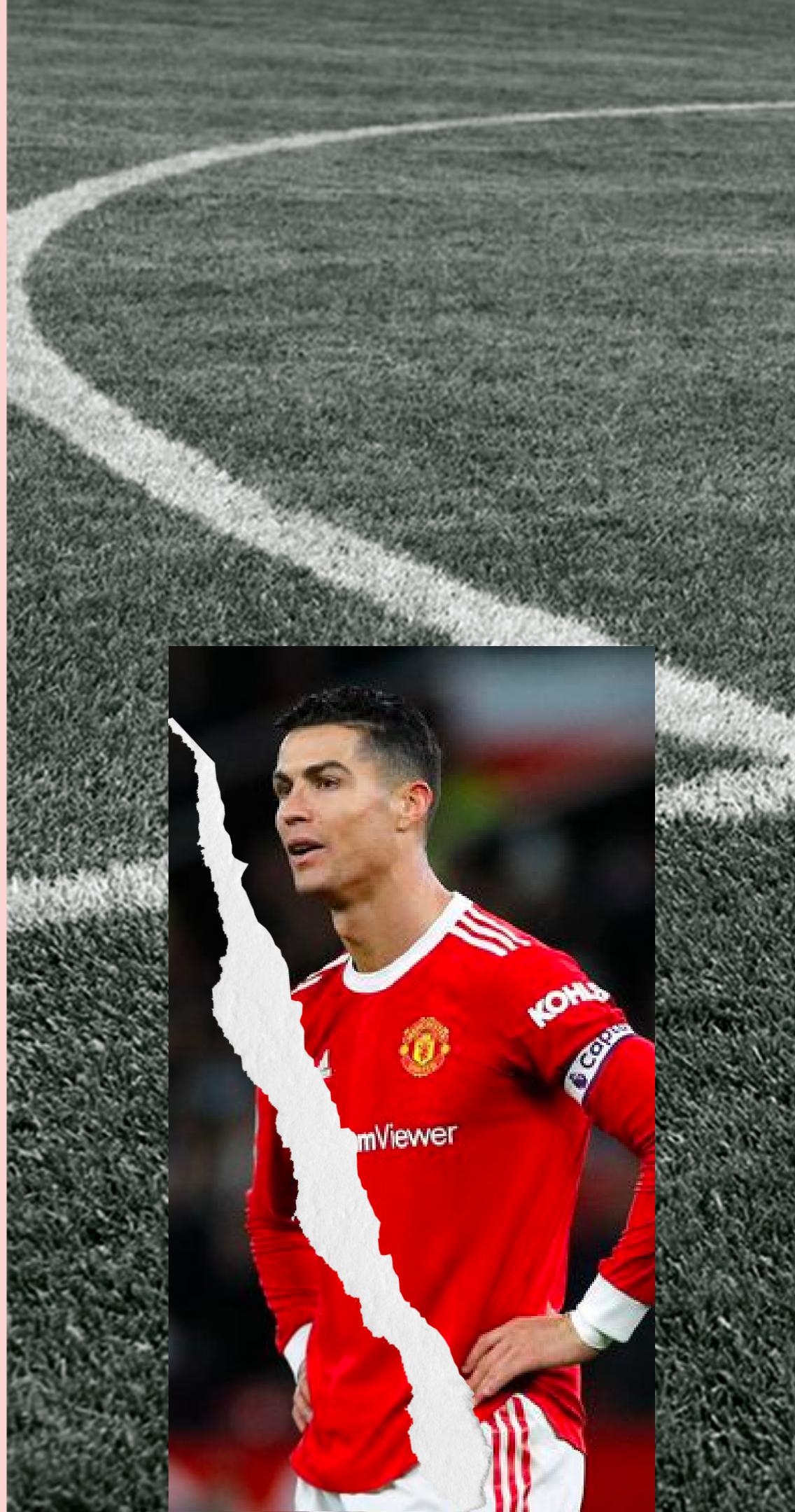
Business Problem

FIFA and EA's partnership is set to end in 2023.
FIFA intends to enter a partnership with a new developer to produce the game.



BREAK
UP

FIFA



Project Objective

To build a player overall rating prediction model, which can be implemented in the new game



Roadmap



DATA SOURCE

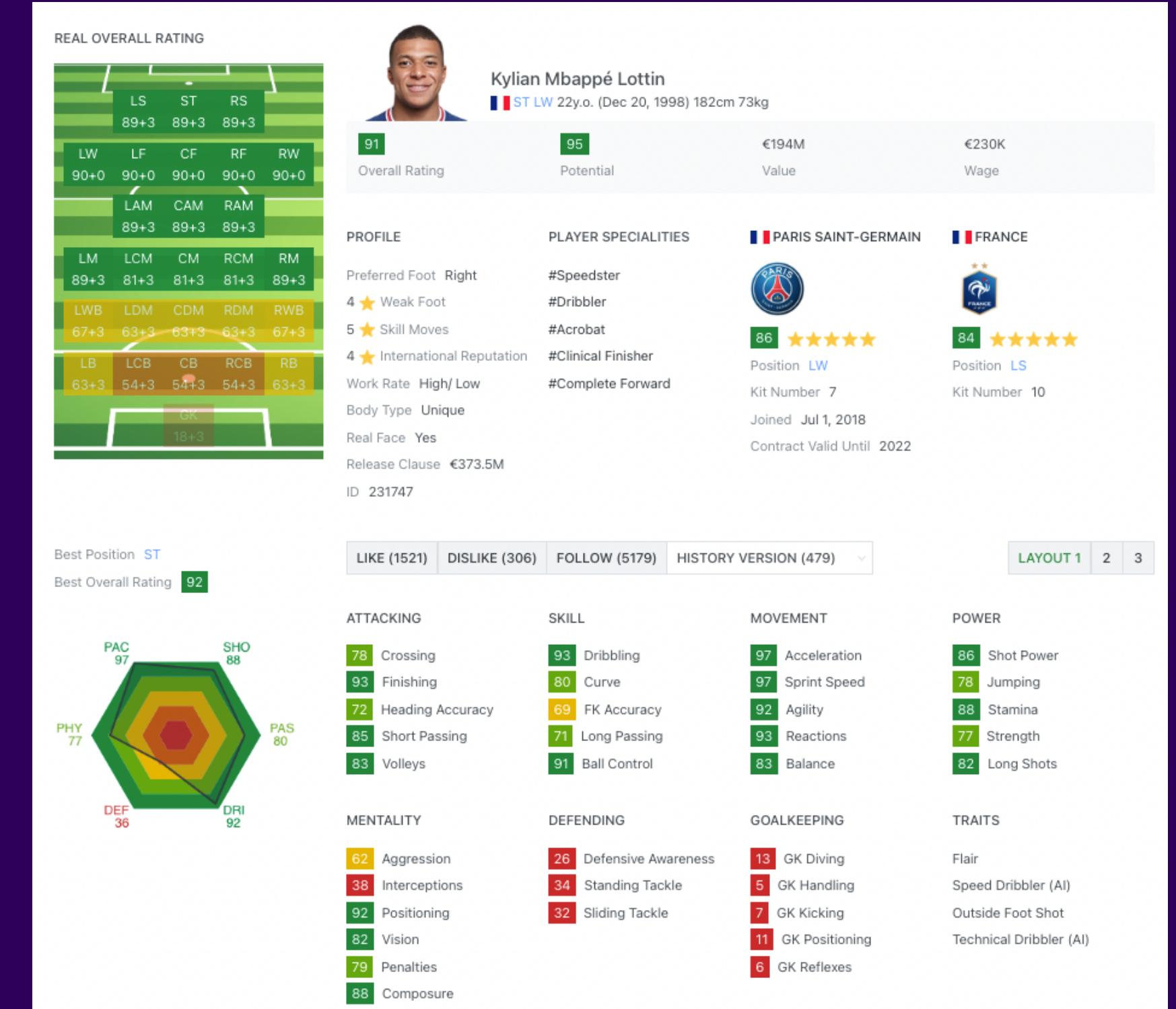
**DATA
ANALYSIS**

**MODEL
PERFORMANCE
& PREDICTIONS**

TAKEAWAYS

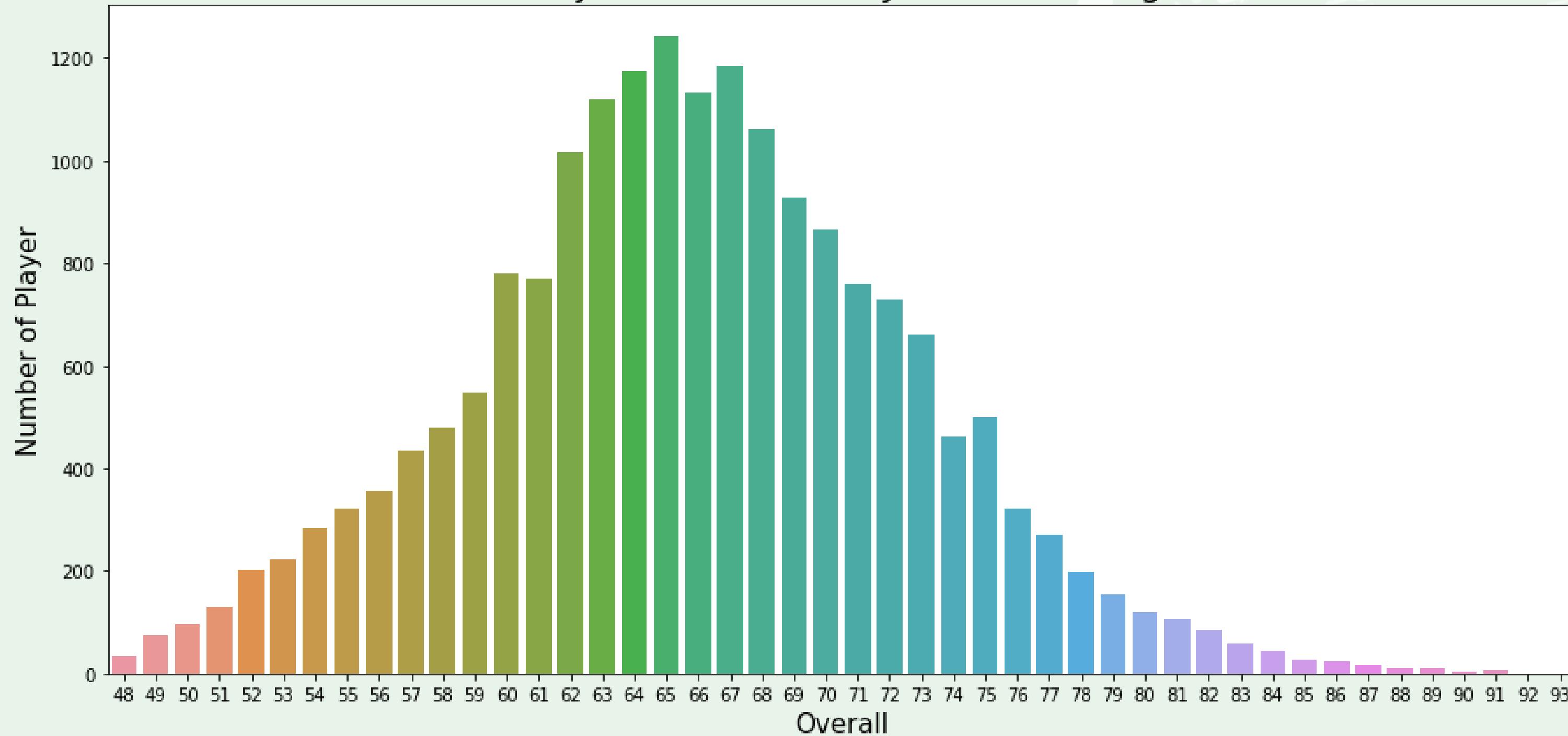
Data Source

- Dataset from Kaggle
- Scraped from Sofifa.com & updated in Jan, 2022
- 19,000+ FIFA player data with 110 columns of player info including detailed attribute ratings



Data Analysis

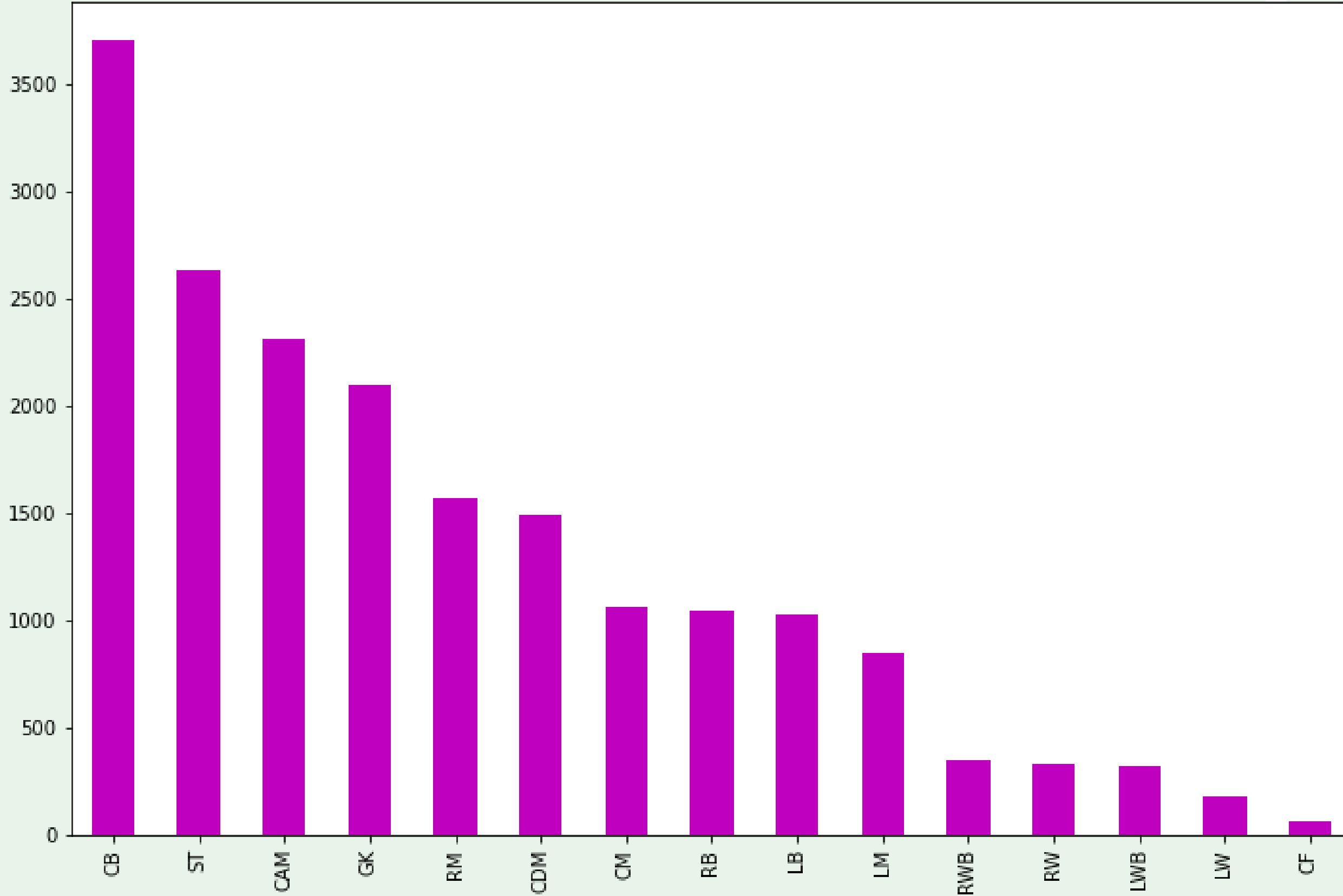
Player Distribution by Overall Rating



- 67% of players fall within the 60 - 73 overall rating range
- Only 10% of players are rated 75+

Data Analysis

Player's Position Distribution

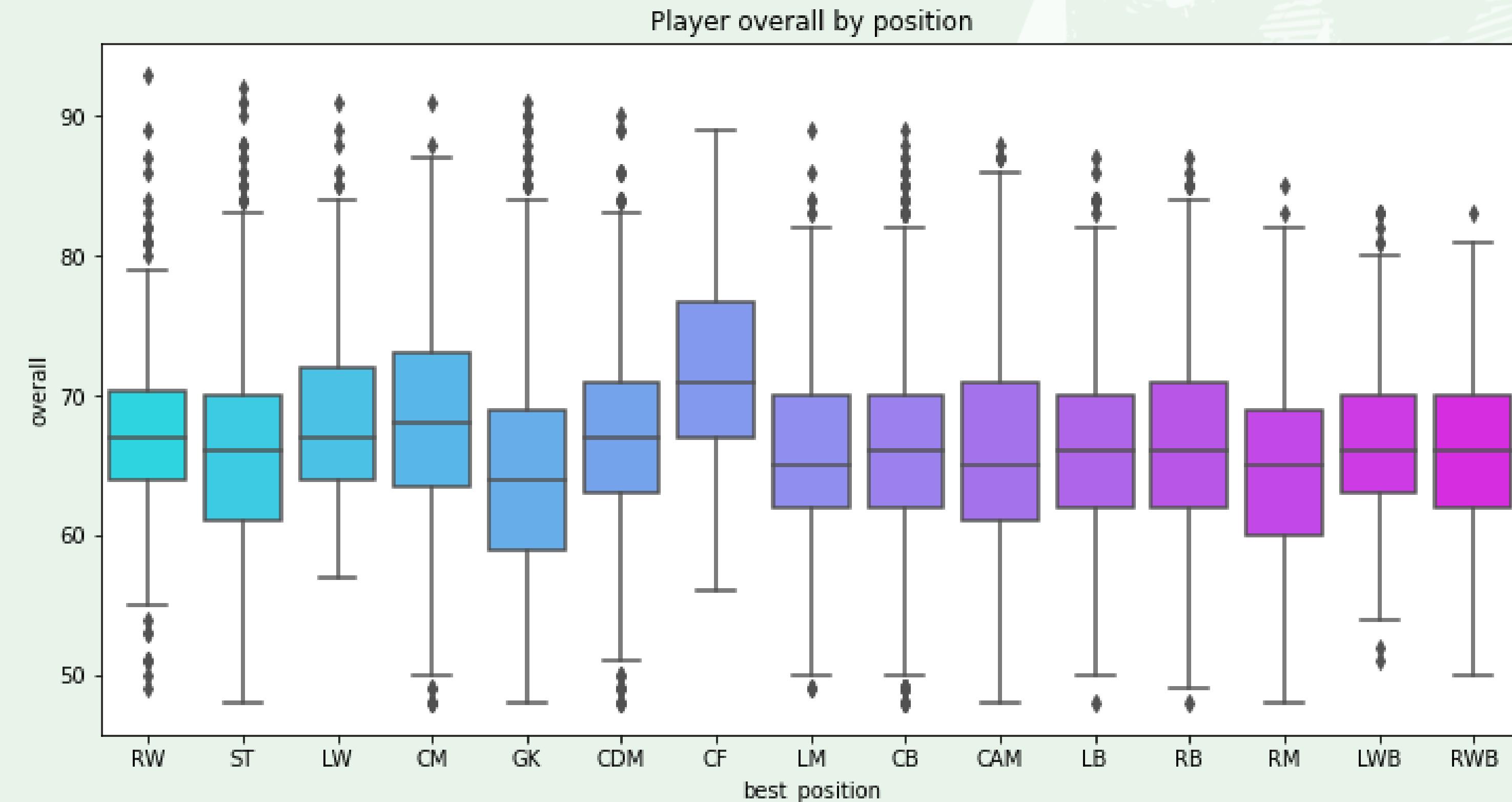


Top 5 Best Position

1. CB (19.5%)
2. ST (13.8 %)
3. CAM (12.1%)
4. GK (11%)
5. RM (8.3%)

These positions make up
about 65% of all positions

Data Analysis



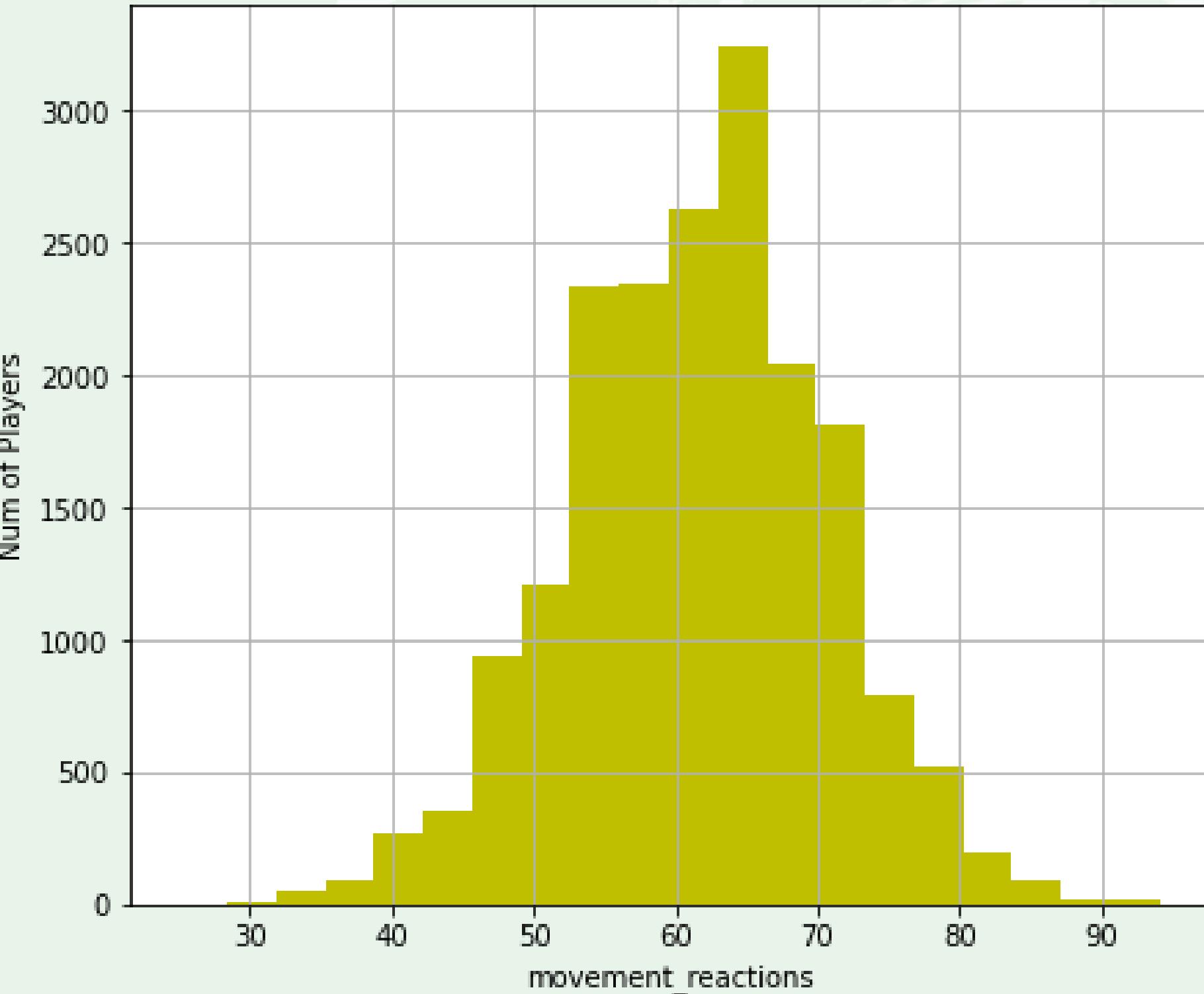
Data Analysis

Total # of predictors: 41

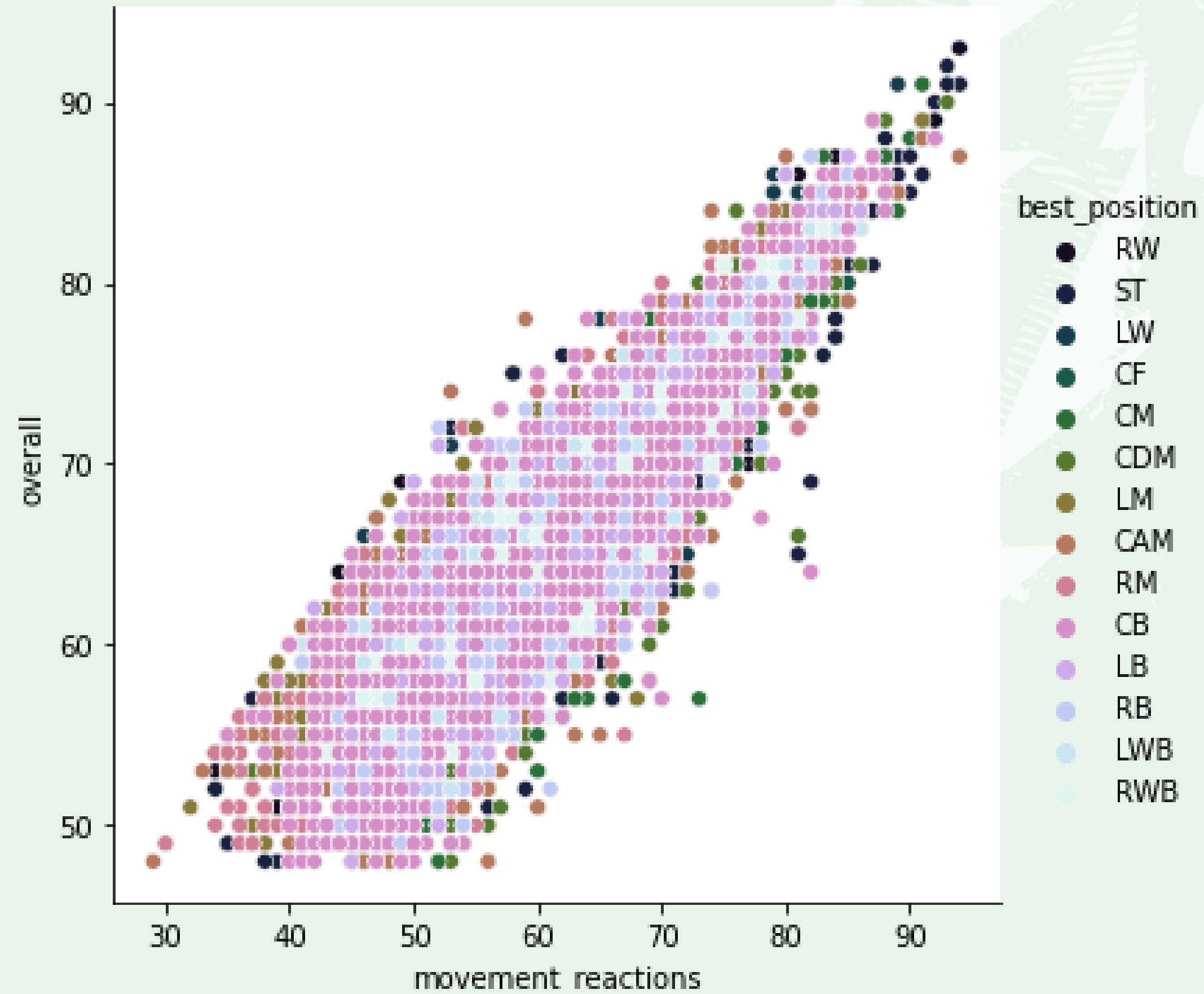
- Physical info
- Attacking
- Skill
- Movement
- Power
- Mentality
- Defending
- Goalkeeping

Top 5 Player Attributes

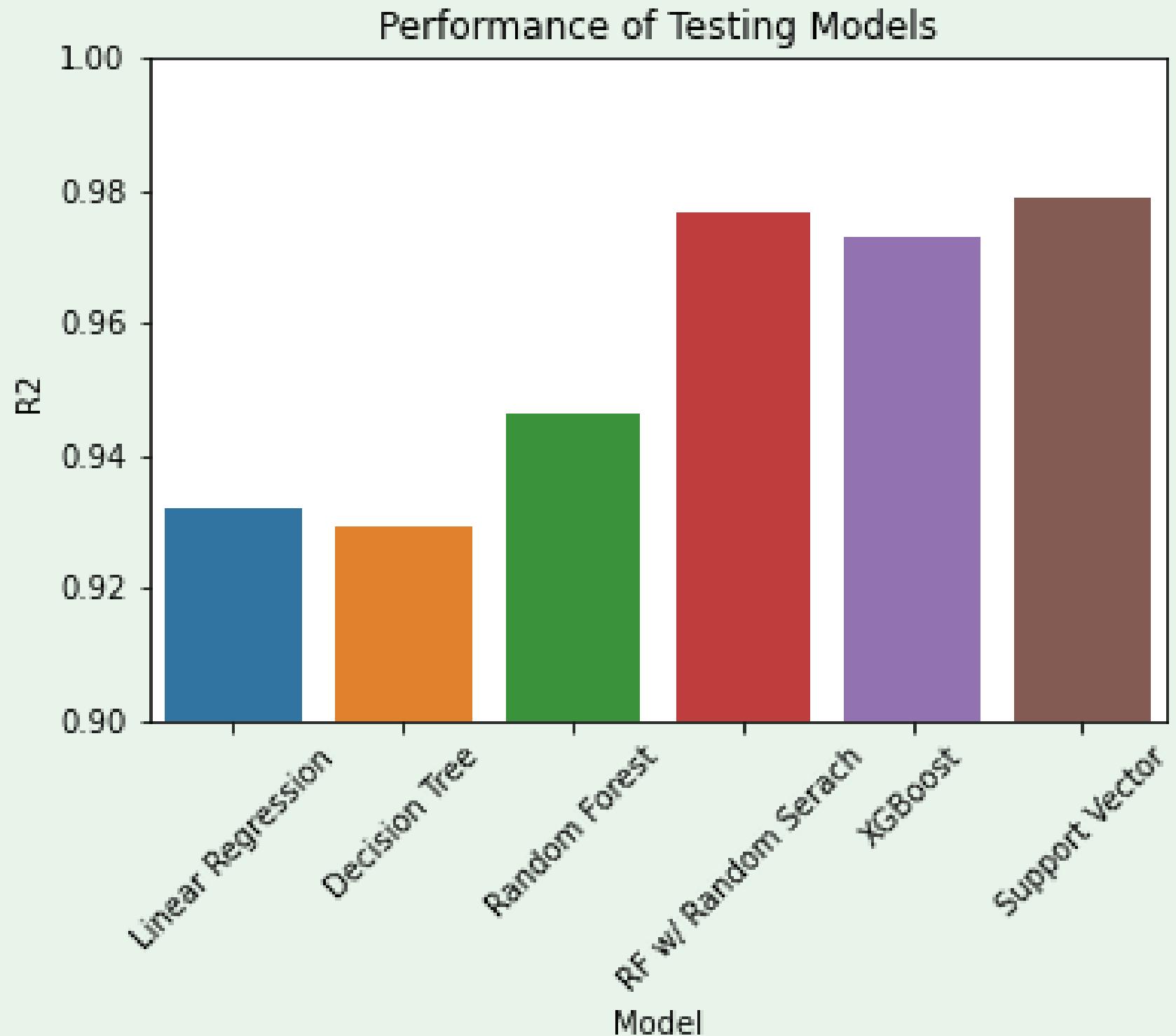
1. Movement - Reaction
2. Mentality - Composure
3. Power - Shot Power
4. Mentality - Vision
5. Attacking - Short Passing



Data Analysis

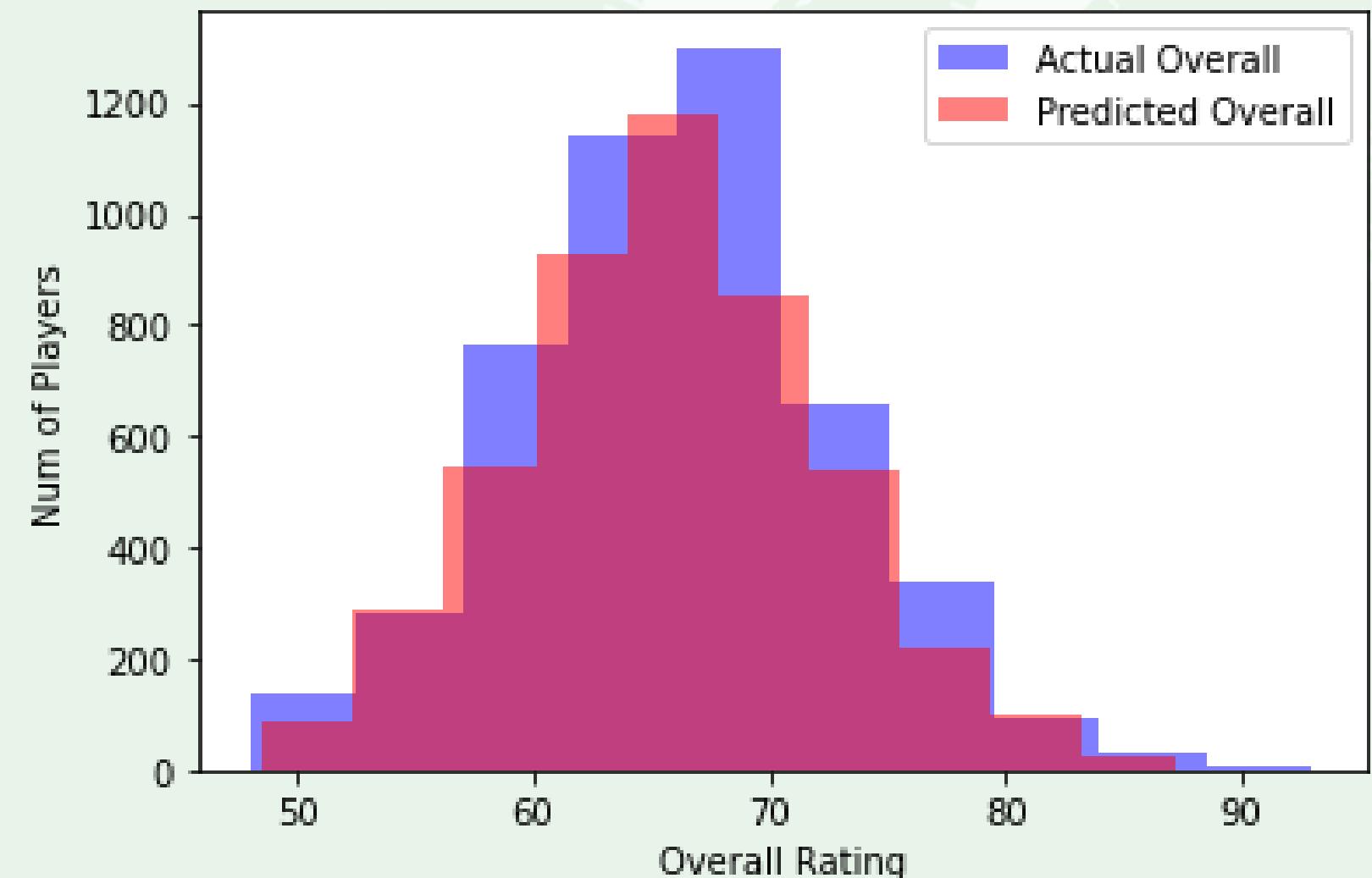


Model Performance



Best Model: Support Vector Regressor

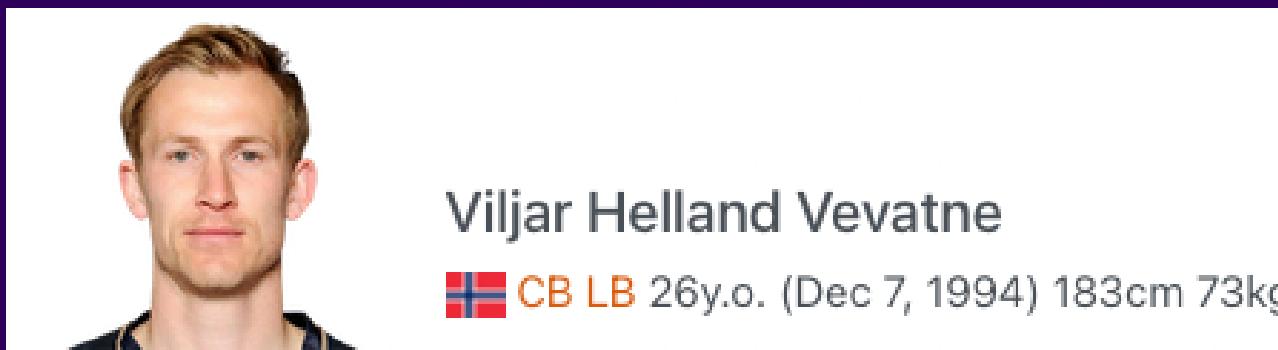
- Cross Validation: 97.67
- R2: 97.90
- RMSE: 0.986



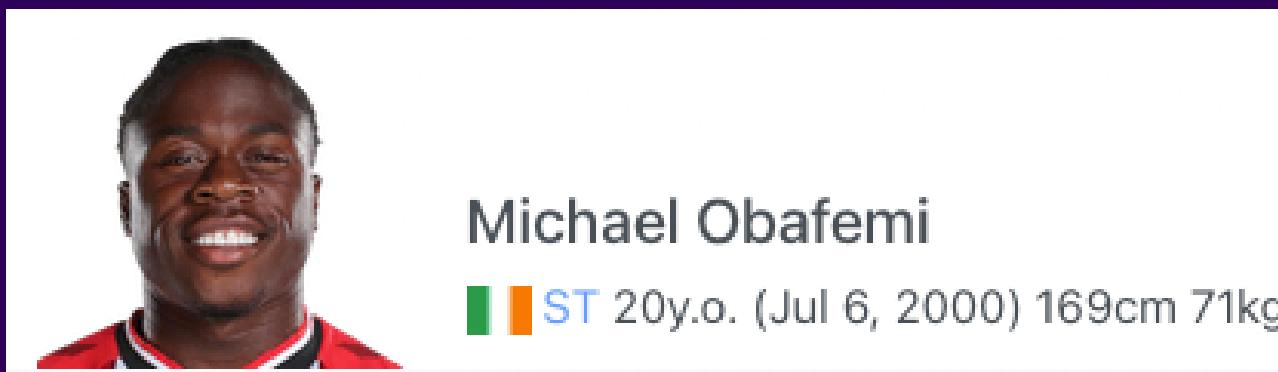
Model Prediction



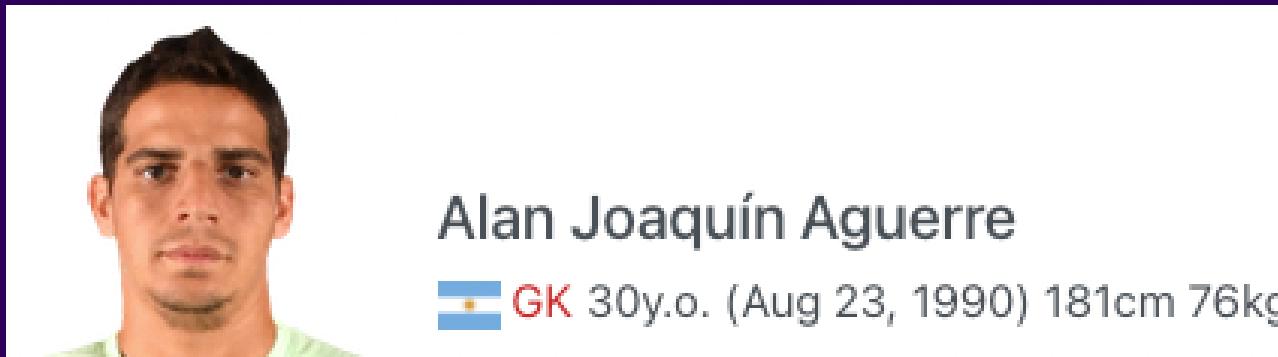
Actual Overall Rating: 76
Model Prediction: 75.61



Actual Overall Rating: 66
Model Prediction: 70.36



Actual Overall Rating: 68
Model Prediction: 69.28



Actual Overall Rating: 74
Model Prediction: 73.65

Takeaways

- Recurring player performance update needed
- Setting different predictor weights for different player positions
- There may be different metrics for the new game



Thank you!



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