



FIFA OVERALL RATING ANALYSIS

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INTRODUCTION

- **Gameplay:** FIFA offers dynamic and realistic football simulation for enthusiasts.
- **Focus:** Enhance player selection and team strategy in FIFA 24.
- **Objective:** Predict 'overall' player ratings to optimize in-game decisions.



DATA OVERVIEW



Data Extraction

Utilized detailed player data from last 10 FIFA games

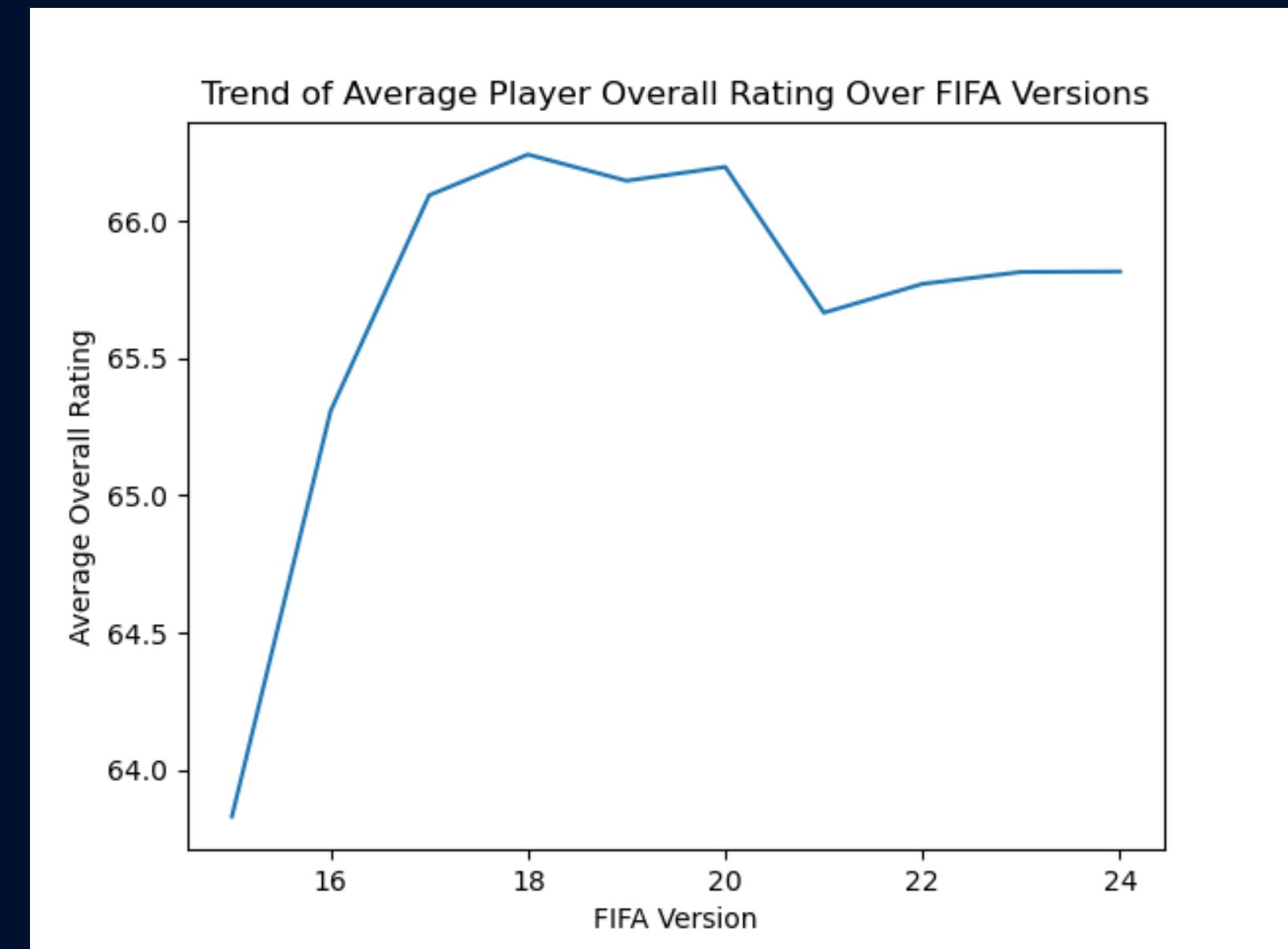
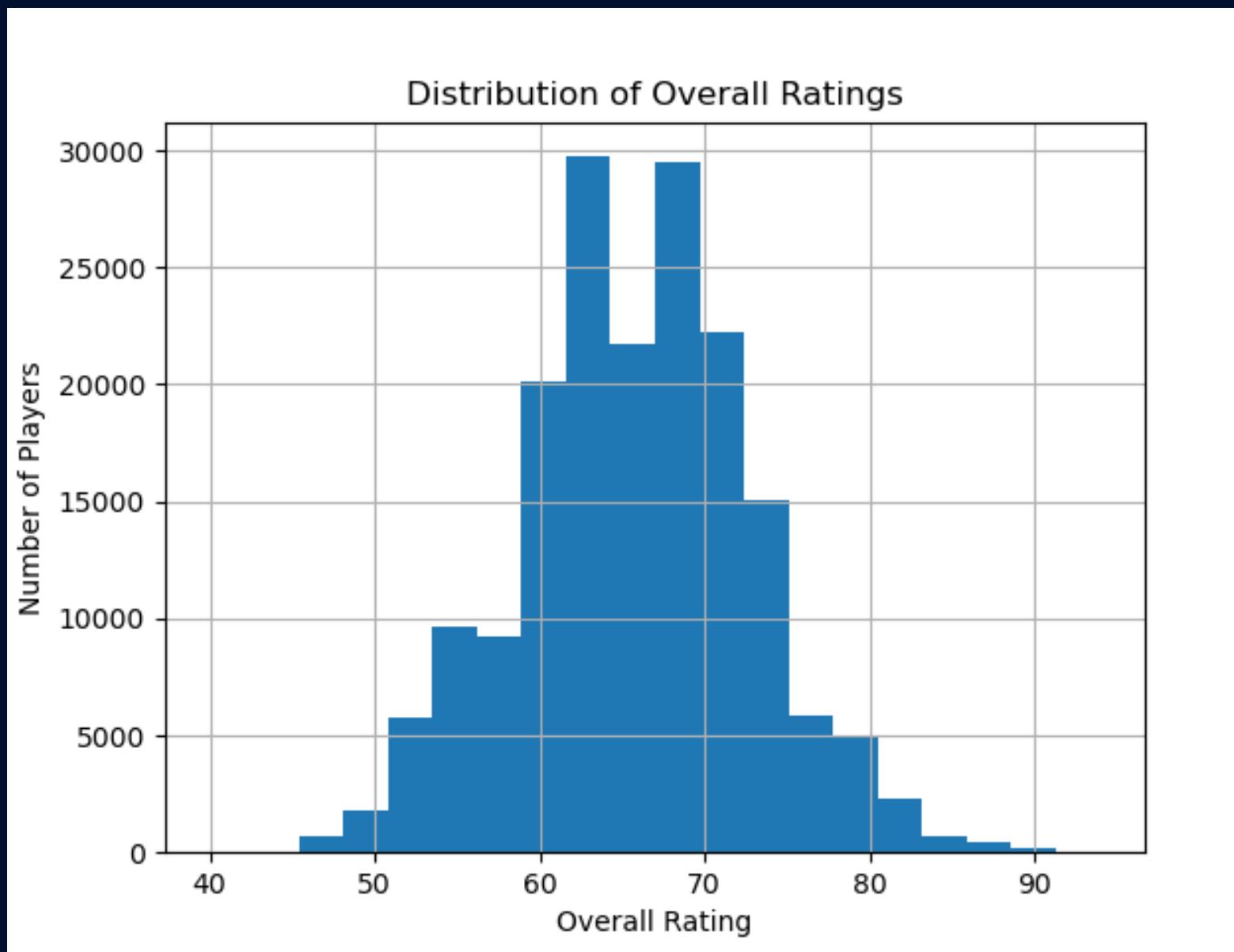
Cleaning Steps

- Removed irrelevant details
- Separated goalkeepers from outfield players.
- Filled missing values in critical attributes to improve data integrity.

Data Structuring

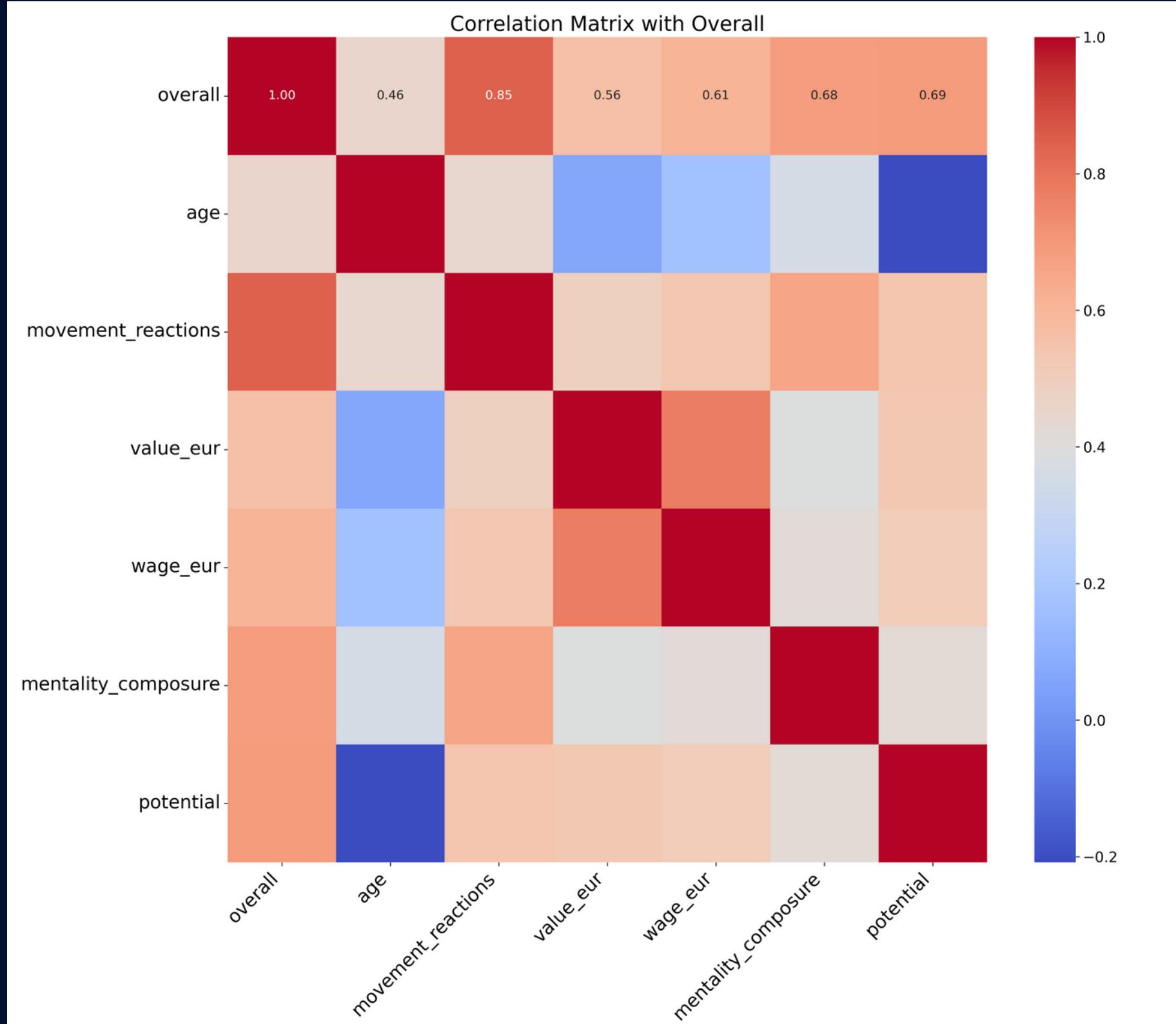
Prepared data for analysis, ensuring correct processing of numerical and categorical types.

EXPLORATORY DATA ANALYSIS



CORRELATION MATRIX

- **Growth Prospects:** Correlation between 'potential' and 'overall' underscores the importance of identifying players with room for improvement for long-term success.
- **Influential Attributes:** Financial situation, reaction and composure are pivotal in determining a player's overall rating





MODEL PERFORMANCE SUMMARY

- **Models Used:** Linear Regression, Random Forest, Gradient Boosting Machine (GBM)
- **Random Forest Metrics:**
 - RMSE: 0.731
 - R²: 0.989
- **GBM Metrics:**
 - RMSE: 1.129
 - R²: 0.974
- **Insights:** Both Random Forest and GBM models showed superior performance

MODEL COMPARISON

