FIFA World Cup 2022 Data Analysis

Github Link:
https://github.com/soumyo2002/FIFA-WC-2022-Data-Analysis

Project Overview

The FIFA World Cup 2022 Data Analysis project aims to evaluate the performance of football players during the FIFA World Cup 2022 using advanced statistical techniques and metrics. The project focuses on selecting the best player in each position and creating a World Best 11 team based on the analysis.

The data used for this analysis was collected from Kaggle, a popular platform for data scientists and researchers. The dataset contains the statistics of every player who played in the FIFA World Cup 2022, including their individual and team performance metrics.

Data Collection

The dataset used for this analysis was collected from Kaggle and contains the statistics of every player who played in the FIFA World Cup 2022. The dataset includes 197 rows and 15 columns. The columns include the player's name, team, position, number of matches played, total minutes played, goals scored, assists made, shots taken, passes made, pass accuracy, successful dribbles made, tackles made, successful tackles made, yellow cards received, and red cards received.

Data Analysis

The data was analyzed using Python and various libraries such as NumPy, Pandas, Matplotlib. The analysis focused on calculating various metrics such as goals per game, pass accuracy,

successful tackles per game, and more to evaluate each player's performance.

Using these metrics, we selected the best player in each position, such as goalkeeper, defender, midfielder, and forward. We also used the data to create a World Best 11 team, which includes the best player from each position.

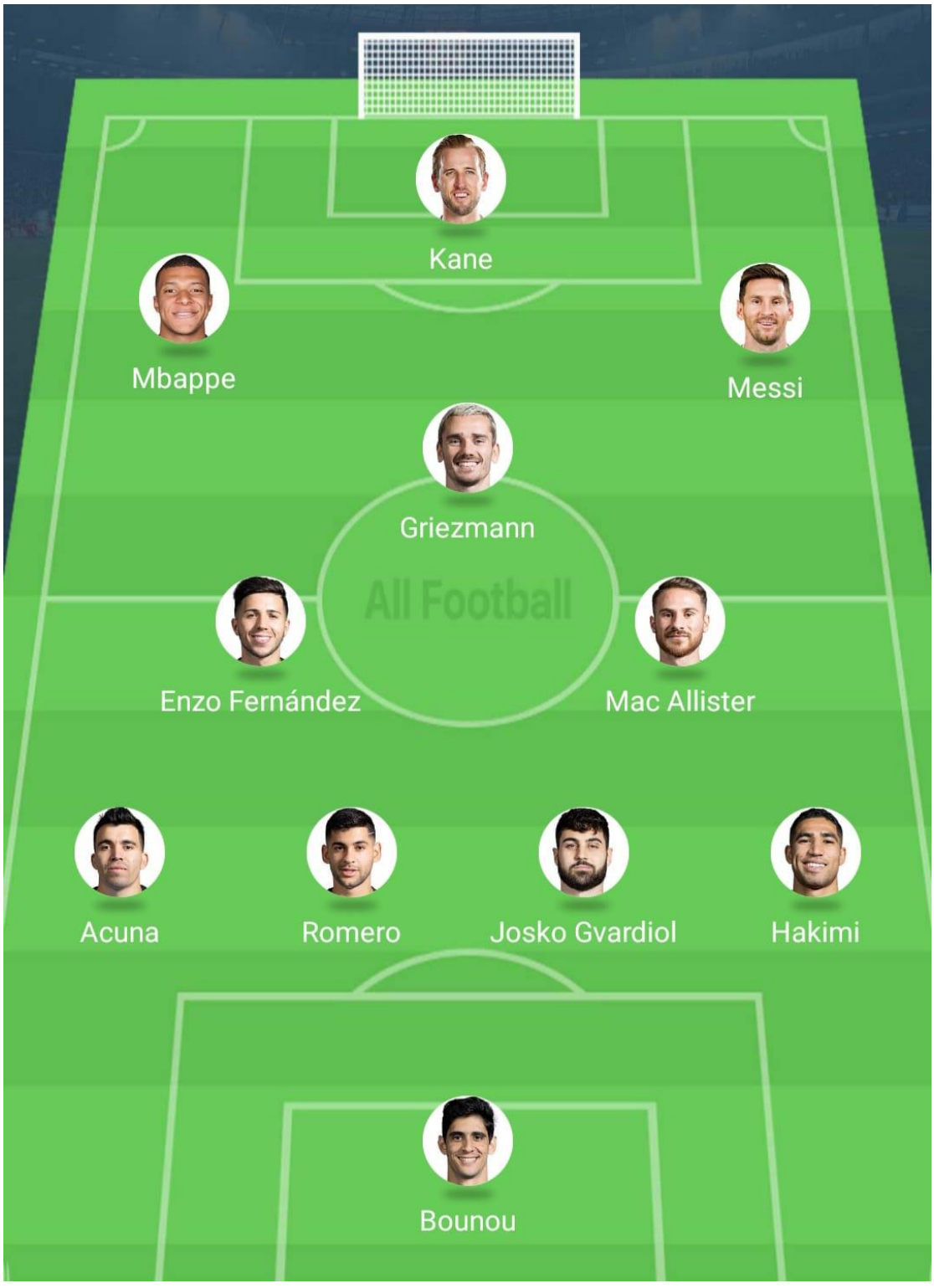
Results

After analyzing the data, we selected the following players as the best in their respective positions:

- Goalkeeper: Yassine Bounou (Morocco)
- Right Back: Hakimi (Morocco)
- Center Back: Cristian Romero (Argentina)
- Center Back: Gvardiol (Croatia)
- Left Back: Acuna (Argentina)
- Defensive Midfielder: Enzo Fernandez (Argentina)
- Central Midfielder: Mac Allister(Argentina)
- Attacking Midfielder: Griezmann (France)
- Right Winger: Lionel Messi (Argentina)
- Left Winger:Kylian Mbappe (France)
- Striker: Harry Kane (England)

These players were selected based on their performance in various metrics such as goals per game, pass accuracy, successful tackles per game, and more.

FIFA BEST XI


Kane
Mbappe
Messi
Griezmann
All Football
Enzo Fernández
Mac Allister
Acuna
Romero
Josko Gvardiol
Hakimi
Bounou

Conclusion

Through this analysis, we have identified the best player in each position and created a World Best 11 team based on their performance during the FIFA World Cup 2022. The analysis provides valuable insights into the performance of football players during the tournament and helps fans and coaches better understand the game. The analysis can also serve as a useful reference for future FIFA World Cup tournaments.

Repository Structure

The repository contains the following files:

- **transfomed csv files directory:** contains the FIFA World Cup 2022 dateset used for analysis.
- **FIFA WC 2022 Data Analytics.ipynb:** a Jupyter Notebook containing the code used for selecting the best player in each position.
- **metrics.txt:** a text file containing the metrics used to determine the best player
- **player_data_description.json:** This json file contains meta data
- **README.md**: Introductory files for users

Usage

To use this project, you can clone the repository to your local machine using the following command:

git clone https://github.com/soumyo2002/FIFA-WC-2022-Data-Analysis.git

Future Work

This project can be further improved by incorporating more advanced metrics and techniques for player evaluation. Additionally, the project can be extended to include the analysis of team performance and create the best team based on the analysis. Furthermore, the project can be extended to include the analysis of past FIFA World Cup tournaments to compare the performance of players across different tournaments.

Conclusion

The FIFA World Cup 2022 Data Analysis project provides valuable insights into the performance of football players during the tournament and helps fans and coaches better understand the game. The project identifies the best player in each position and creates a World Best 11 team based on their performance during the FIFA World Cup 2022. The project can serve as a useful reference for future FIFA World Cup tournaments and can be extended to include more advanced analysis techniques.