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**Analyzing the Ballon d’Or Nominees for the 2024 Season**

Background:

The Ballon d'Or is an award given to the best soccer player in the top European leagues. This visualization includes both individual and team statistics, enabling users to compare players. According to this visualization, Rodri, the Spanish midfielder from Manchester City, was the best player in the world last season and deserves the Ballon d'Or. This conclusion is based on his offensive and defensive stats, as well as his significant positive impact on his team. To view more of his stats (and those of other players), check the table below and enter his name.

Data Preparation:

The dataset, published by Farzam Manafzedah on Kaggle, included a short list of nominees but had many columns. I removed over half of the columns to simplify the table because many of them covered more nuanced parts of the game. I also renamed all the columns to be more user-friendly. This made it easier to create plots and display tables clearly.

[Link to Dataset](https://www.kaggle.com/datasets/farzammanafzadeh/ballon-dor-2024-nominees-league-stats)

Creating the Interface:

This interface was created using the "shiny" package in R. The main goal was to be user-friendly while displaying high-quality visualizations. I achieved this by using consistent colors for variables and faceting when necessary, along with a variety of plot types. The application measures common individual statistics, such as goals and assists relative to total minutes played, as well as team-based stats like average points won per match. It starts with notes explaining specific terms to help users who may be unfamiliar with the topic, like goal contributions, for example, which is a phrase to combine goals and assists under one category. Users can also filter data by league, which simplifies the graphs and allows for a clearer focus on specific features.

The interface includes two scatterplots: one with a brushing tool that filters data across all three plots, and another that displays player name, nationality, league, and age when hovering over points. Additionally, there's a histogram showing defensive statistics (tackles plus interceptions) for each player, organized in descending order.

While offensive players usually have the most impressive stats due to their goal contributions, it's also important to include defensive statistics. I chose to facet the goal contributions graph by position to highlight trends—unsurprisingly, offensive players tend to score more goals than defensive players. However, faceting by position also allows a player like Alex Grimaldo, a defender, to stand out relative to those playing in his position. Grimaldo had over 20 goal contributions this year, a tally that would rival most forwards. Overall, this interface was designed to visualize key statistics for each player while considering team success.

Interesting Findings:

One surprising finding was the significant impact of midfielders compared to players in other positions, which makes sense since they often control the game. However, I found it notable that the media's favorite for the award, forward Vinicius Jr., was less influential than several other players, including midfielder Declan Rice and defender William Saliba, who are unlikely to win.

Additionally, it seems that most nominees were chosen from a select group of teams, typically those finishing at the top of their leagues. This trend means that players like Rice and Saliba, who both play for Arsenal—a team that finished in second place in the Premier League—benefit from being part of a very talented squad. As a result, plus-minus may not be the best way to measure a player’s impact, indicating that further analysis is needed.

Finally, it appears that most of the players nominated this year play in the Premier League (in England) and La Liga (in Spain). It would be interesting to compare this data to previous years to determine if this is a common trend.

Reactive Graph:

A diagram of a computer flowchart

Description automatically generated