

Visualizing NFL Player Metrics

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Dashboard Here:



Abstract

This project is dedicated to reshaping the exploration of NFL player data [1]. Tailored for sports analysts and fantasy football managers, the goal is to deliver convenience through seamless data navigation and precise filtering through an interactive dashboard. In contrast to the static formats found on the ESPN [2] and NFL websites [3], this dynamic interface offers interactive visualizations, empowering users to effortlessly compare data. These comparisons can be used to draw quick conclusions about player performance.

Methodology

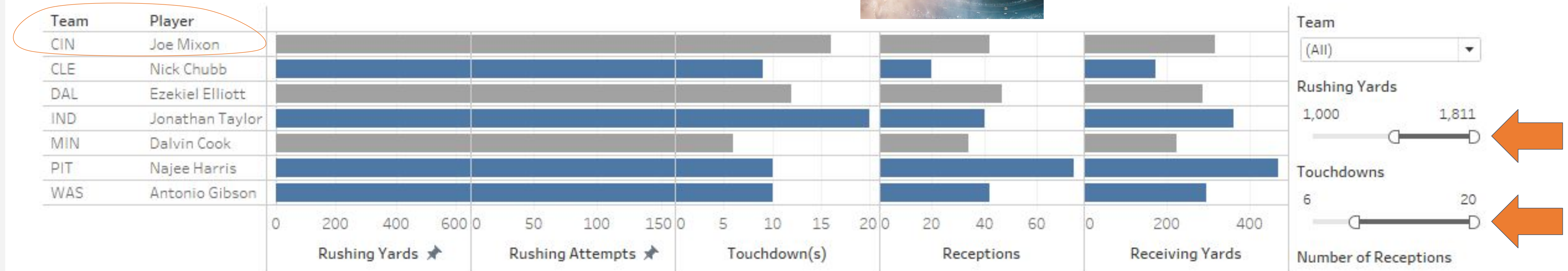
- Import Data:** The data [1] used in this project was found on Github. Specifically the CSV file for NFL offense data was used.
- Connect to Data:** Connect to the data source using Tableau [4].
- Construct Sheets:** Tableau is used to drag and drop dimensions and measures to construct each visualization.
- Add Filters:** In each sheet, add filters so that the user can set specific parameters on the dataset.
- Complete dashboard:** Add sheets to dashboard.



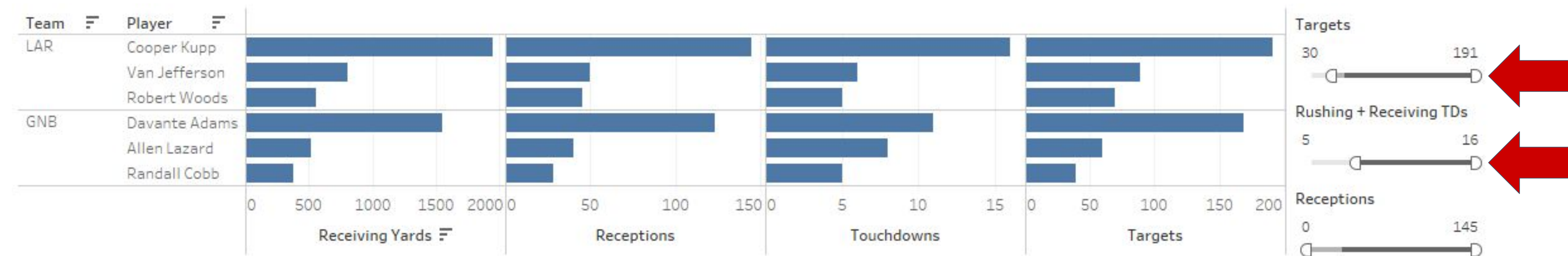
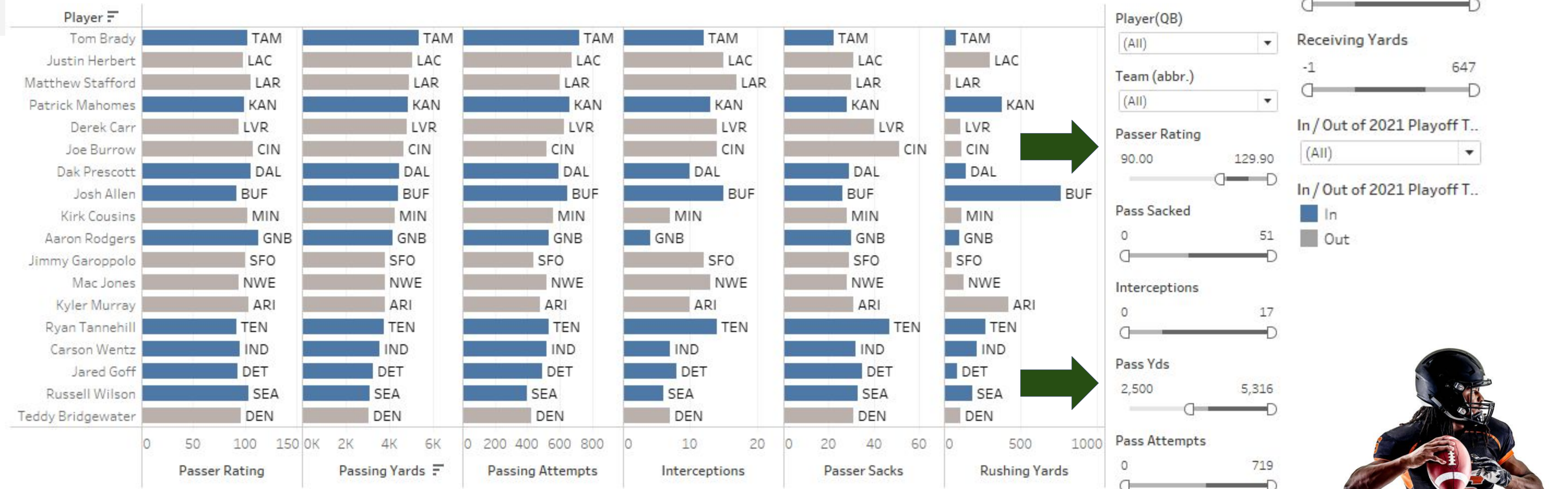
References:

- <https://github.com/minhnguyen14797/nfl-2021-data-extraction>
- https://www.espn.com/nfl/stats/_/season/2021/seasontype/2
- <https://www.nfl.com/stats/player-stats/category/passing/2021/post/all/passingyards/desc>
- <https://www.tableau.com/>

Running Backs
This chart displays the players who had at least 1,000 rushing yards and 6 touchdowns. Notice that Joe Mixon outscored players that made it into the playoffs in the touchdown category.



Quarterbacks
This chart displays the quarterbacks who have a passer rating of 90 or higher and threw for at least 2,500 passing yards.



Wide Receivers
The chart above filters teams to the Los Angeles Rams and Green Bay Packers. The data is refined to highlight players who have a minimum of 5 touchdowns and at least 30 targets.



Future Work

The ultimate goal is to include additional positions like tight ends, kickers, and defensive players for a more comprehensive analysis. Additionally, exploring week-by-week statistics will offer dynamic insights into player performance trends throughout the season. Our goal is to continually enhance the platform, making it an essential resource for sports analysts and fantasy football enthusiasts seeking deeper insights into NFL player statistics.