

# Crafting Winning Plays: Unlocking Insights as a Utah Jazz Data Scientist



T A K E   N O T E

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[https://github.com/cmulks/sql\\_project.git](https://github.com/cmulks/sql_project.git)

I am solving the problem of predicting player performance.  
Using many data sources. I will solve this problem by  
analyzing insights based on trends from players'  
performances throughout the 2023-24 season.

# Overall, this job consists of looking at models in order to help basketball decision making

## DUTIES & RESPONSIBILITIES:

- Develop and maintain models to better predict basketball outcomes and facilitate better decision-making across Basketball Operations.
- Perform ad hoc data analysis as necessary to help basketball decision-makers.
- Interface with all departments within Basketball Operations (scouting, coaching, analytics, sports science) and strive to understand and meet their needs.
- Identify, research, and implement opportunities for new models, data sources, and basketball analytics techniques.
- Help maintain and test datasets used to perform analysis.
- Maintain best practices for software development including test writing, documentation, and adherence to and improvement of coding standards.
- Protect the reputation of the company.
- Exemplify the Utah Jazz mission and values: transparency, all in, community obsessed, one team, and scrappy.
- Accept other duties, as assigned.

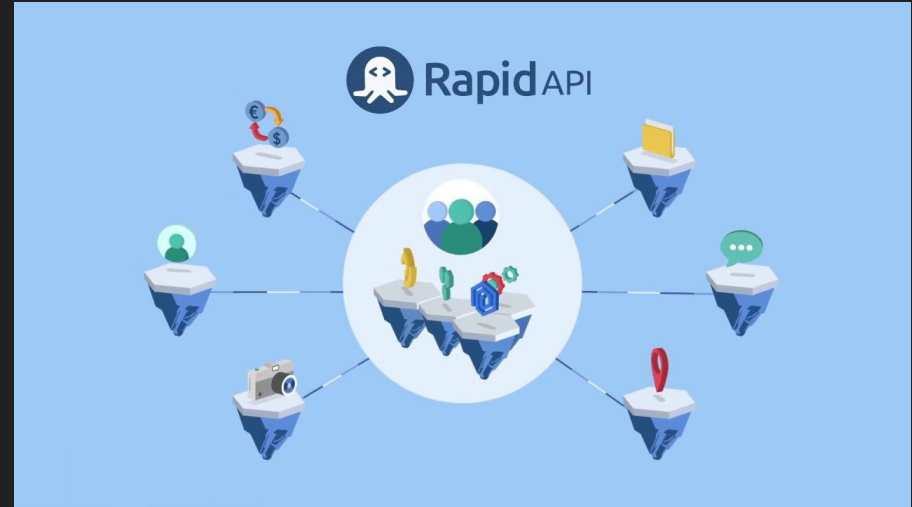
## QUALIFICATIONS:

- 2+ years of experience analyzing data and training statistical models in a production environment using Python or R.
- 2+ years of experience with basketball data and the latest basketball analytics techniques.
- 2+ years of experience with data visualization.
- Expertise in statistics fundamentals and state-of-the-art predictive modeling techniques.
- A desire to work in a startup-like environment where you will be empowered to make design decisions.
- A track record of writing clean and well-documented code.
- Bachelor's in Statistics, Data Science, Math or equivalent experience.
- Enthusiasm for basketball.
- Nice to have experience with ML Ops.
- Nice to have experience with SQL.
- Nice to have experience with data engineering.

# I focused on RapidAPI for my API data source

Player stats per game ID

Games per team and season



# I web scraped CBS Sports and NBA for additional data

CBS Sports: Date and Outcome

NBA: Jazz matchups and results by game



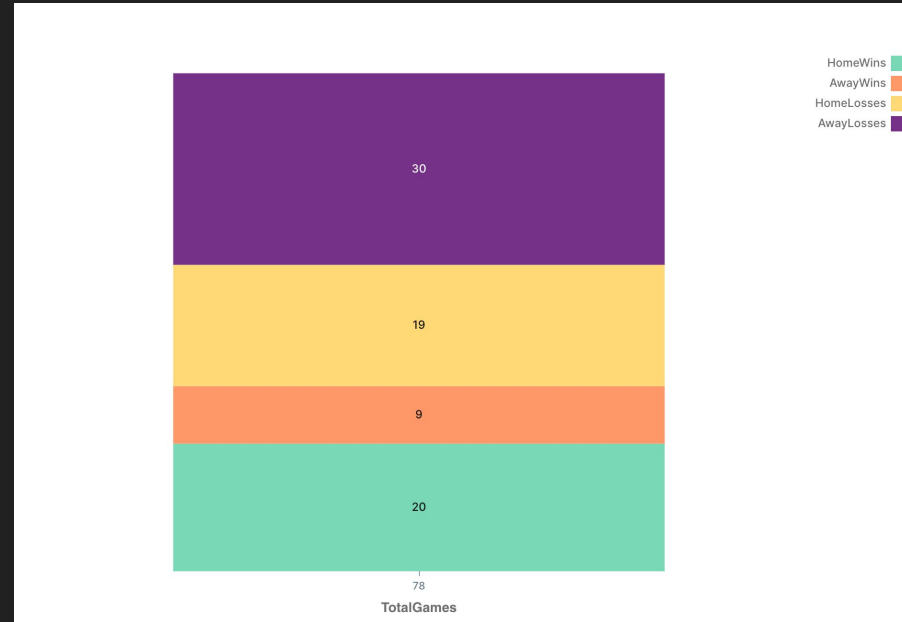
# Most of the Jazz's games resulted in Away Losses

**Business question:** How does the team perform in home and away games?

**Insight:** The Jazz have a poor away record.

**Recommendation:** The Jazz coaches should investigate why they are losing so many games on the road.

**Prediction:** Whey they are able to adjust their Away game strategies, their record will improve.



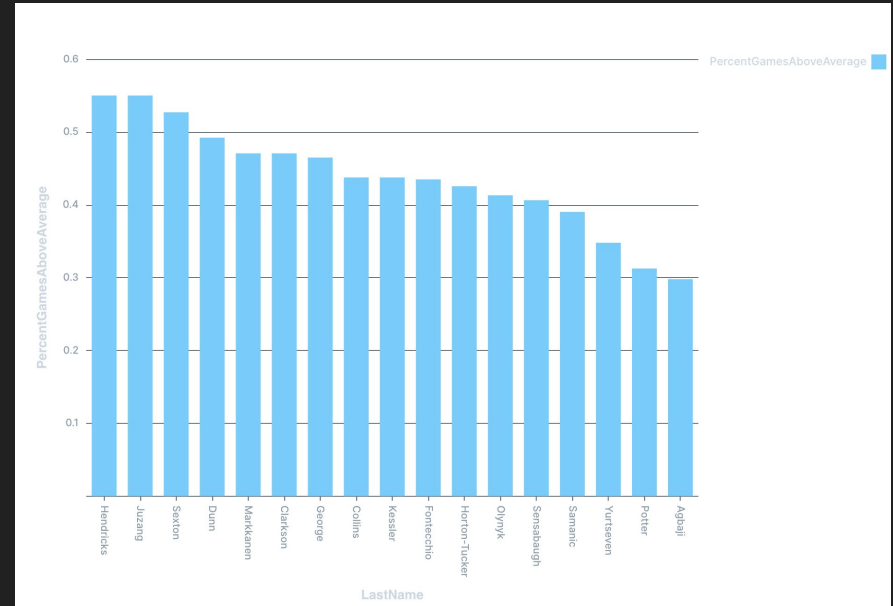
# Hendricks, Juzang, and Sexton are the most likely to perform over their average on a given game

**Business question:** How do player point averages compare?

**Insight:** Taylor Hendricks, Johnny Juzang, and Collin Sexton are most likely to perform better than their average on a given game.

**Recommendation:** The coaching staff should identify key contributors to tailor game strategies.

**Prediction:** Once coaches re-strategize, they will win more games.



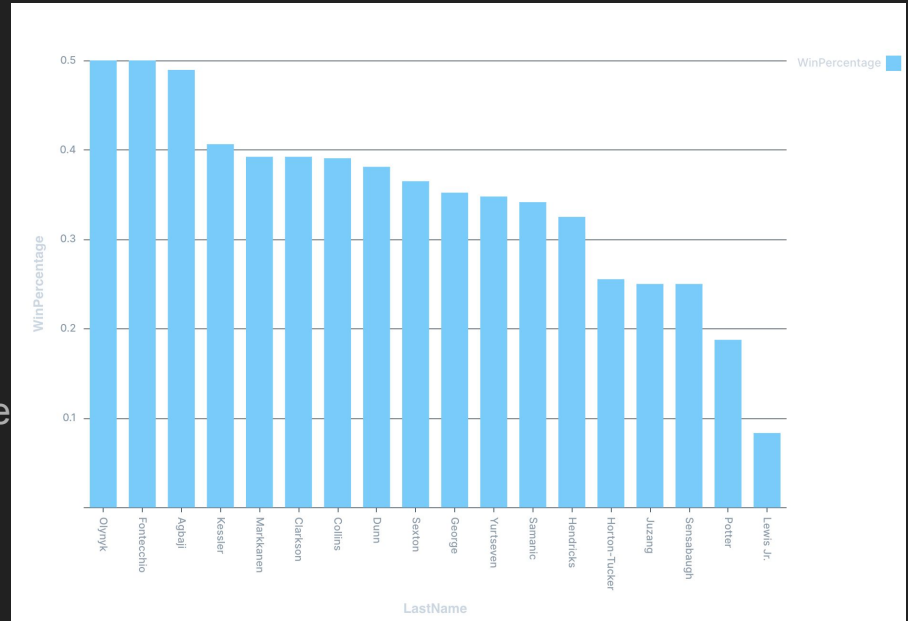
# Olynyk, Fontecchio, and Agbaji have the highest winning percentage in games they have played in

**Business question:** How do player metrics correlate with game outcomes?

**Insight:** Kelly Olynyk, Simone Fontecchio, and Ochai Agbaji, have the highest win percentage in games that they play in.

**Recommendation:** Coaches should prioritize these players in their lineups.

**Prediction:** Optimizing the performance of these key players will lead to sustained team success.





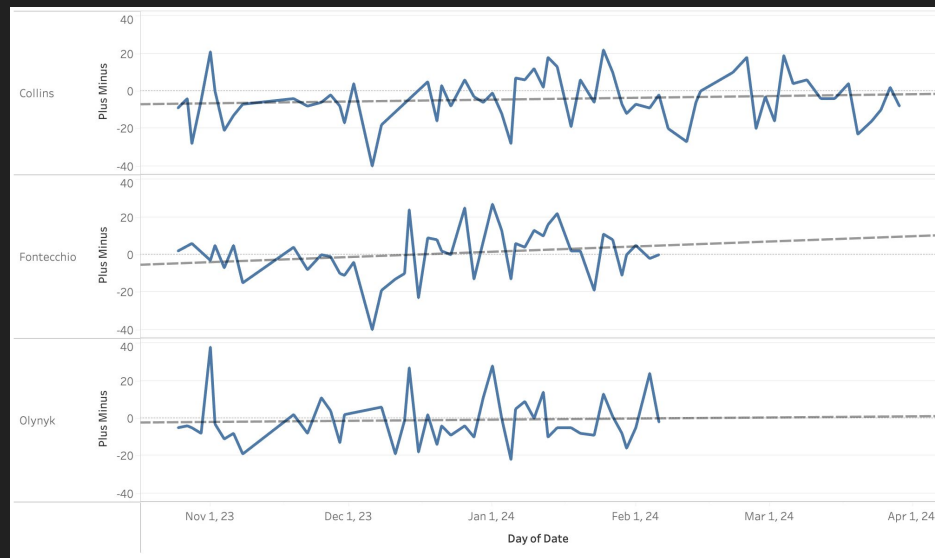
# Collins, Fontecchio, and Olynyk have the best predicted PlusMinus in the future

**Business question:** What is the trend of player plus-minus?

**Insight:** Collins, Fontecchio, and Olynyk have the most stable and positive trending PlusMinus.

**Recommendation:** This should be further investigated since plusminus is a complicated metric.

**Prediction:** Players who have positive trends in projected plus-minus will continue to contribute positively to the team's performance in future games.



As a Basketball Data Scientist for the Utah Jazz, the opportunity to leverage advanced analytics and data-driven insights presents an exciting pathway to revolutionize the team's performance. By harnessing the power of data, I can drive strategic decision-making, optimize player performance, and ultimately elevate the team's competitive edge in the NBA landscape, and push the boundaries of what's possible in the realm of basketball analytics.