Frisbee Data Dynamics

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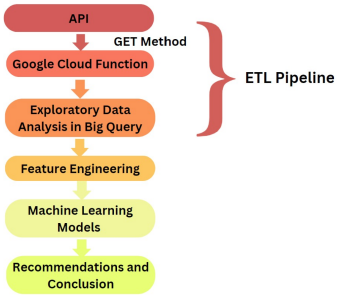
Objective

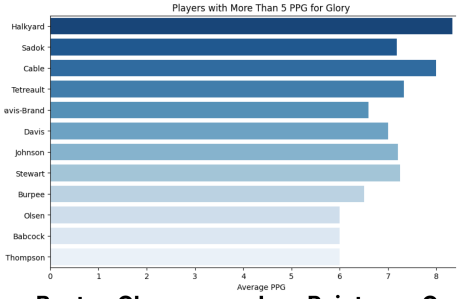
The primary objective is to improve the performance of the Boston Glory frisbee team by leveraging data analytics to provide actionable insights. The project aims to identify key areas of offensive and defensive strengths and weaknesses, and to suggest on-field strategies that can lead to wins and championships within the UFA league.

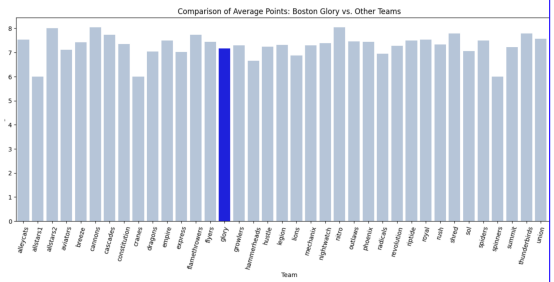
Methodology

Data Collection and Preprocessing:
We source our data from UFA API.
We build a low cost, easily managed ETL infrastructure(Google Cloud Function) to automate ingestion of the data from these sources into our Data Warehouse(Google Big Query) and event triggers to update dashboards and models.



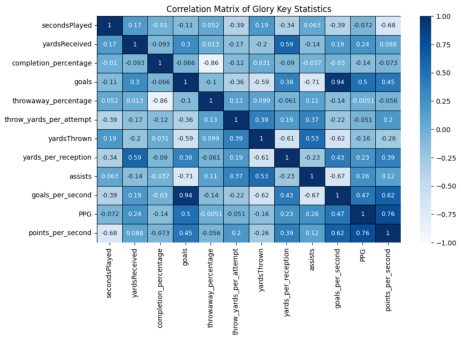
Points Per Game (Goals + Assists)





Boston Glory scores less Points per Game (Goals + Assists), at 7.16 PPG, compared to a league average of 7.43 PPG, indicating a need for offensive improvement.

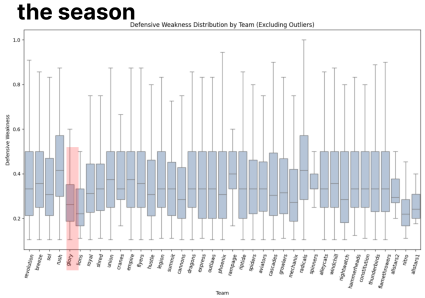
Key Performance Metrics for Boston Glory



- **YARDS RECEIVED:** The total number of vertical yards received by the player for the season
- **YARDS PER RECEPTION:** divide a player's total receiving yards by the number of receptions they've made
- **SECONDS PLAYED:** The number of seconds on the field by the player
- **YARDS THROWN:** The total number of vertical yards thrown by the player for the season

Defensive Weakness

Boston Glory has a strong defense compared to the rest of the league, averaging 0.21 goals scored against versus a 0.39 league average.



Next Steps

- Develop regression models to determine feature importance for both teams and individual players.
- Deliver models and strategies to the Boston Glory front office.
- Provide actionable on-field strategy recommendations based on the model outcomes.
- Validate model predictions with real-world game data.
- Iterate and refine models based on feedback and additional data.

Limitations

- Missing values in certain columns can affect the accuracy of the analysis.
- Determining the most effective methodology for analysis is challenging.
- Limited historical data for some players and teams.
- Potential biases in the data sources used.
- The need for continuous updates to models as new data becomes available.
- Balancing model complexity with interpretability for practical use by the coaching staff.

References

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