

FC CINCINNATI TECHNICAL PRESENTATION

Naveen Elliott

MY PROJECT:



Brainstorming with coaches



Using Python to Clean Data from PSD

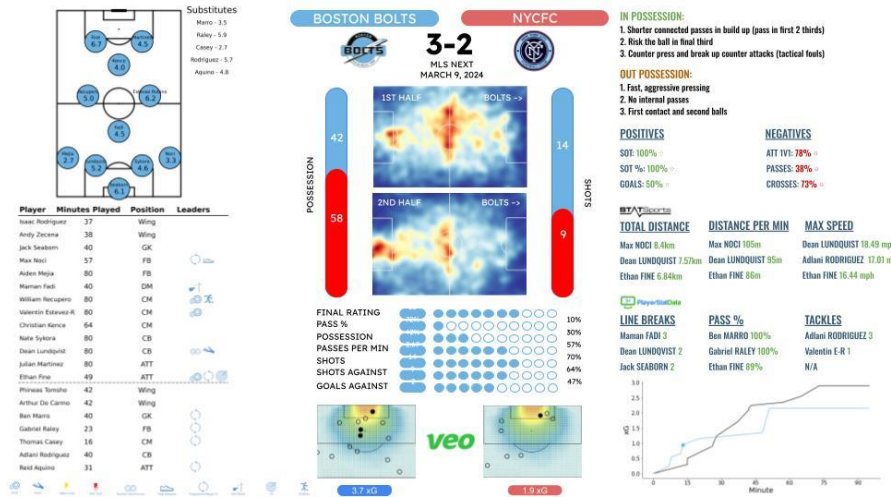


Using Tableau to Visualize Data



Case Study/Demo

BRAINSTORMING



- At the academy level, there is an issue when it comes to providing players and parents with objective and easily digestible feedback intended to make the athlete better
- We developed a post-match review for evaluating the true performance of the team, regardless of the scoreline, but we did not have anything for specific players yet
- That's where through discussion with coaches, I formulated an idea to use data from our third-party data provider PlayerStatData to generate insights for that player into how they are performing amongst themselves in specific, positional KPIs



USING PYTHON TO CLEAN DATA

- Tableau isn't great at processing data, so I prefer to do data processing in Python
- First, I take all the event data tagged by PlayerStatData and convert it into a format that works with Tableau
- Then, based on each player's name, I produce a random six-digit key to preserve the privacy, we don't want players to compare themselves vs their teammates
- Lastly, I find the player's most frequent position and most recent game and convert to a csv for Tableau

Key Quality 1 Name

```
IF [Position Tag] = 'CB' THEN 'Progressive Regain %'  
ELSEIF [Position Tag] = 'FB' OR [Position Tag] = 'DM' OR [Position Tag] = 'CM' THEN 'Progressive Recoveries'  
ELSEIF [Position Tag] = 'Wing' OR [Position Tag] = 'CF' THEN 'Total Defensive Actions'  
END
```

Fullback

Total Tackles
Total Recoveries
Total Forward Passes
Pass %
Pass into Opponent Box

6's

Possession Loss
Total Actions
Total Tackles
Progressive Regain %
Line Breaks

Wingers

Total Defensive Actions
Total Forward Passes
Pass into Opp Box
Dribbles
Shots

Centerback

Total Tackles
Progressive Regain %
Pass %
Line Breaks
Def Aerial %

8's

Total Forward Passes
Pass %
Dribbles
Progressive Regain %
Shots

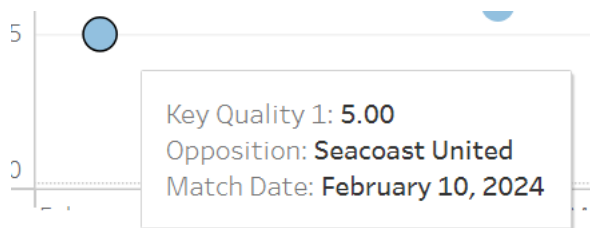
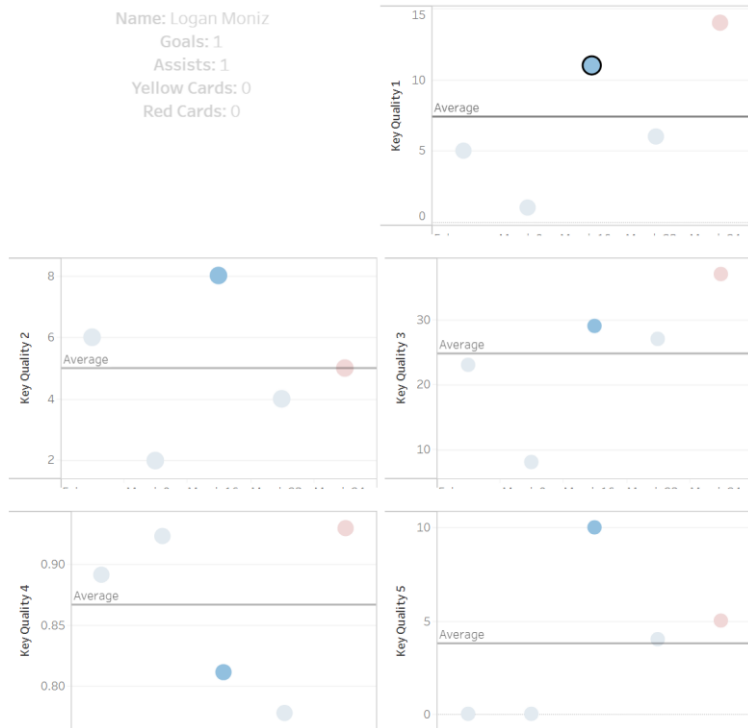
Center Forwards

Total Defensive Actions
Total Passes
Dribbles
Possession Loss
Shots

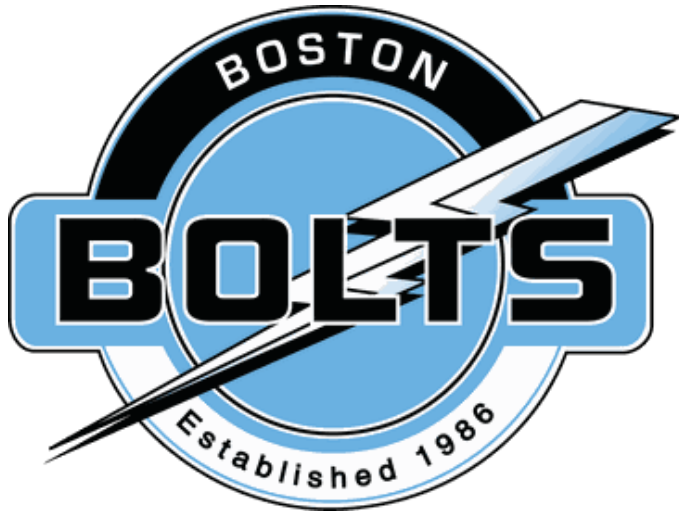
USING TABLEAU TO VISUALIZE DATA

- With the csv data from Python, I use Tableau to create an interactive dashboard that players, coaches, and parents can view each week
- Using the position-specific information provided by the coaches, I created variables that contained the KPIs which fluctuated based on a player's position
- I then created KPI charts that contained the player's average in that KPI on the Y axis and the date on the x-axis, which would allow a player to see how they are performing over time, if they are getting better or not
- I also added basic information about how many goals, assists, yellow, and red cards they have recorded in that time

USING TABLEAU TO VISUALIZE DATA



- I also added a legend that would tell the player what their specific KPIs are, this changes based on the position of the player entered
- There are also highlights where a player can click on their most recent game or a specific game, and it will highlight across the rest of the charts
- A user can also hover over a specific point and see the raw number for that KPI, the opponent for that game, and the date



CASE STUDY/DEMO

- The players I will use for this demo are Sam Cunniffe and Logan Moniz of the Bolts U16 MLS Next Team
- Logan (YJQTFj) is a CM and Sam (NZPHaQ) is a CB
- **GOAL:** We want to compare Logan and Sam's 3-5 Most Recent Performances and see how they are performing relative to their average
- Their weakness from these last 3-5 games will direct their IDP time, where players have an opportunity to work on a skill or a goal during practice
- [LINK](#)

THANK YOU

GitHub Link: <https://github.com/naveenelliott/FC-Cincinnati-Technical-Interview-Project>

