Assuming the role of a GM, we were tasked with selecting an MLS team with the following scenario:

The trade deadline is quickly approaching and you must identify a position that you need to strengthen. After identifying the position that needs strengthened, you must identify a maximum of 3 trade targets from inside the league that you feel would strengthen the position

My process was as follows:

1. Select an MLS team
2. Identify a position to strengthen
3. Identify up to 3 trade targets

Selecting an MLS Team

I began my process by digging into the current standings in the *MLS is Back* Tournament. By utilizing Python and libraries like Requests, BeautifulSoup, and Pandas, I was able web-scrape the league standings and take a deeper look at each MLS team and their performance in the tournament. Through this Data Analysis I quickly noticed that the team with the most **goals for** was also the team with the second highest **goals against,** LAFC. This is very interesting considering most of the other teams that had scored a large number of goals had conceded very few goals.
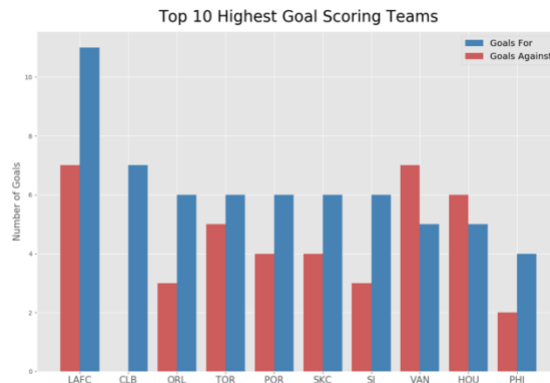

With this said, I chose to be the GM of Los Angeles Football Club.

My next steps included analyzing LAFC's performance in the tournament to identify which position truly needed strengthening. This involved analyzing film on MLS.com and using my domain knowledge of the game to make claims around LAFC's team. After taking a look at film and taking in depth notes, I was able to find out the following information

LAFC Location of Conceded Goals

We can see that the majority of the goals were given up inside the penalty area to various teams in the *MLS is Back* Tournament. But what is even more interesting is the type of goal they conceded in this area of the field.

LAFC Location of Conceded Goals: Shots vs Crosses
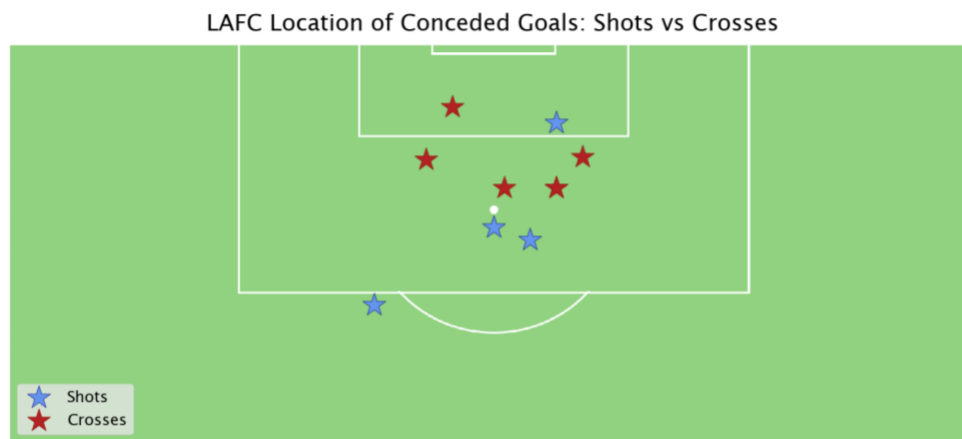
5 out of the 9 goals conceded were aerial goals, all 5 from crosses into the box. The other "shots" was 1 own goal, a penalty, a poor defensive error from a counterattack, and a shot from outside the 18. LAFC had no problem blocking shots or defending 1-on-1 further from goal, but they do have a problem aerially defending in their own penalty box. From this information, I identified the Center Back position as a position that needs strengthening on the LAFC roster.

This was the most difficult part of the process, American Soccer Analysis contained information around salary that was very helpful in terms of eliminating players over the $400,000 salary mark. Other than that I was unable to find data that included information around player position, height, weight, starts, minutes played, and any other helpful metrics.

I chose to take an unorthodox approach and identify teams that I thought would have players that fill this need for LAFC. Some of the constraints I put on players to select as trade targets were:

1. Guaranteed Salary Cap of $400,000
2. Center Back Position
3. Large Amount of Professional Experience
4. Strong Force in the back (strong aerially and communicatively)

From manually searching, utilizing some of American Soccer Analysis interactive tables to analyze salary data, and passing data in python. I came up with 3 trade targets:

Josh Williams
Height: 6'2"
Weight: 192
Age: 32
Columbus Crew

Ike Opara
Height: 6'2"
Weight: 180
Age: 31
Minnesota United

Brent Kallman
Height: 6'2"
Weight: 190
Age: 29
Minnesota United

These trade targets satisfied a large number of years playing the Center Back position, a strong presence in the back that I attributed to height and weight, less than a guaranteed salary cap of $400,000 and non-international players since LAFC has the maximum number of players.

Future Work given additional resources:

If I were given this as a true prospective goal, I would have chosen to analyze past seasons to fully determine a position to strengthen. The current pandemic does not indicate true performance of each individual club. I would have really liked to find more data on players currently in the league to compare metrics around playing time, height, weight, years of experience, injury, and several other metrics that could help determine the optimal trade targets. Future work could also be building a model using other key players of LAFC's roster to build off of, and find the perfect fit at the centerback position that works smoothly with these other key players.

Technologies Used: Python, Numpy, Pandas, Requests, BeautifulSoup, https://www.americansocceranalysis.com/, https://www.mlssoccer.com/ and my domain knowledge of the game

All code used can be found at: https://github.com/morganabbitt/MLS-Project