

finalProjectDraft

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Intro

What

My final project examines the commonalities found in successful teams in the Men's Collegiate Lacrosse Association (MCLA) since 2012.

Why

This was chosen because of my relationship with the team and the data that the league archives every year. I have been involved with the team for five years, and thought this would be a great way to marry a passion of mine with the topics we have covered in SEIS 631.

How

As stated earlier, the goal of my project is to determine if there are commonalities between successful teams in the MCLA. First, A successful team is determined by whether or not they were selected as a participant in the national tournament at then conclusion of the season. The most successful team is the National Champion of that respective year. The commonalities evaluated were each team's offensive strength, defensive strength, overall strength, (strength of schedule), and record overall as well as in their conference. The metrics to determine these commonalities are as follows: Goals For, Goals Against, Goal Difference, Wins and Losses, and Conference Wins and Losses.

Body

Topics From Class

Topic 1: R Markdown

R Markdown was used to make the method used, metrics gathered, and analyzed results easier to read in a common format.

Topic 2: Github

Github was used to publish findings and how the final results were determined.

Topic 3: Linear Regression

Linear Regression was used to find try and predict if a team would be selected to make it to the national tournament and be considered a “successful team”. This was also used to predict which team, from the top 16 would become then National Champion.

Topic 4: ggplot

GGPlot will be used to show distributions of statistics and frequencies of teams selected to the national tournament

Topic 5: Probability

Probability was used to make and show predictions of results based on the data available. This will also be tested against the real results to show accuracy, train algorithms, and provide evidence for theories.

Conclusion

Before this project, I had theories, which will be discussed in the final project about what I might find. I expected that teams with a harder schedule and an above average record would be considered “successful”. Some factors that I thought wouldn’t have an impact was conference record, a high goal difference, and