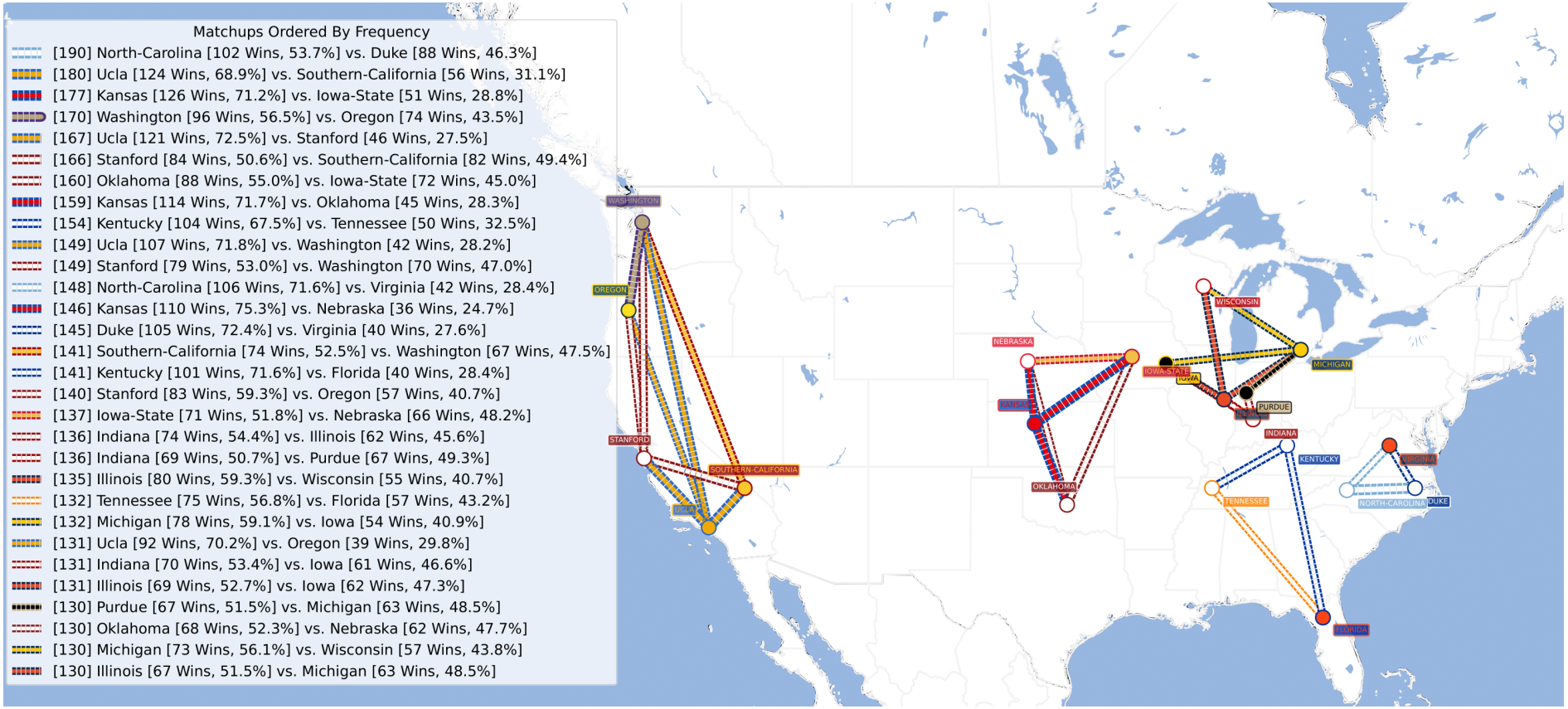
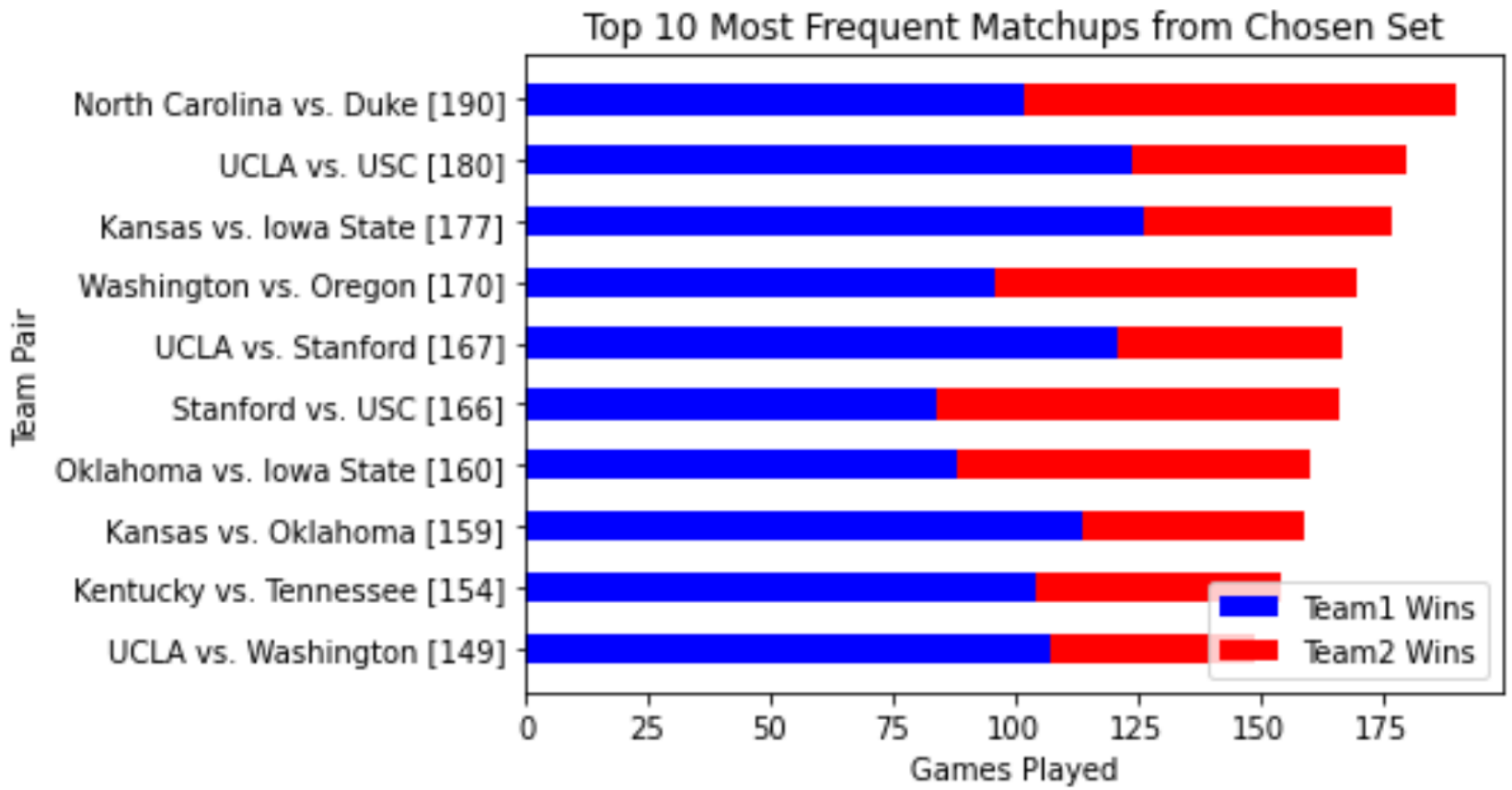
“College Basketball Matchup Heatmap (1950-2023, Minimum 130 Games)”



Description/Legend

Each **circular point** represents a specific NCAA D1 College Basketball team, mapped where that college is located. Each circle is accompanied by a **label** with the team’s name it corresponds to. The **colored lines** between each circle represent two things: (1) the number of times the two teams have played each other (thicker = more games played) and (2) who is the “victor” of the matchup (who has won more of the games between the 2 teams).

For example, the line between UCLA and Stanford is blue and yellow because UCLA has won more games in the matchup, and it is relatively thick because of the 167 games played between the two teams. All circles, labels, and lines (for the “victor”) are colored according to the college’s actual colors.



Findings

In games spanning 1950 to 2023 (for my chosen set of 31 teams):

- The most frequent matchup is between Duke and North Carolina, amounting to 190 games.
- There are 30 matchups in which there have been over 130 games played.
- Among the 130+ matchup group, the most "one-sided" relationship is Kansas having won 75.3% of all games against Nebraska.
- In general, the most frequent matchups exist between teams that are geographically close to each other. This is exhibited by the cluster formations that exist on the map.

Data and Method

Data for the matchup amounts is gathered from the Sports Reference matchup finder: https://www.sports-reference.com/cbb/play-index/matchup_finder.cgi. I used BeautifulSoup to scrape the number of games played between each pair of teams and save them to a text file. Then, I used a combination of MatPlotLib and CartoPy to visually plot this data. For the official colors of each college, I used information from https://teamcolorcodes.com/. I again used MatPlotLib to create the stacked bar chart for the top 10 most frequent matchups.

Significance

This figure is significant because for sports fans, an interesting thing to discuss is what the "biggest rivalries" are in a sport; the same can be said for college basketball. Some rivalries are well-known among fans, such as Duke vs. North Carolina, but the purpose of this figure is to show what other pairs of teams have played each other a significant number of times but may not have as big of a reputation as being a "big rivalry." For example, some may not expect Kansas vs Iowa State to be the 3rd most frequent matchup for this set of teams.

GitHub Link

https://github.com/drew-whiteside/infoviz-final