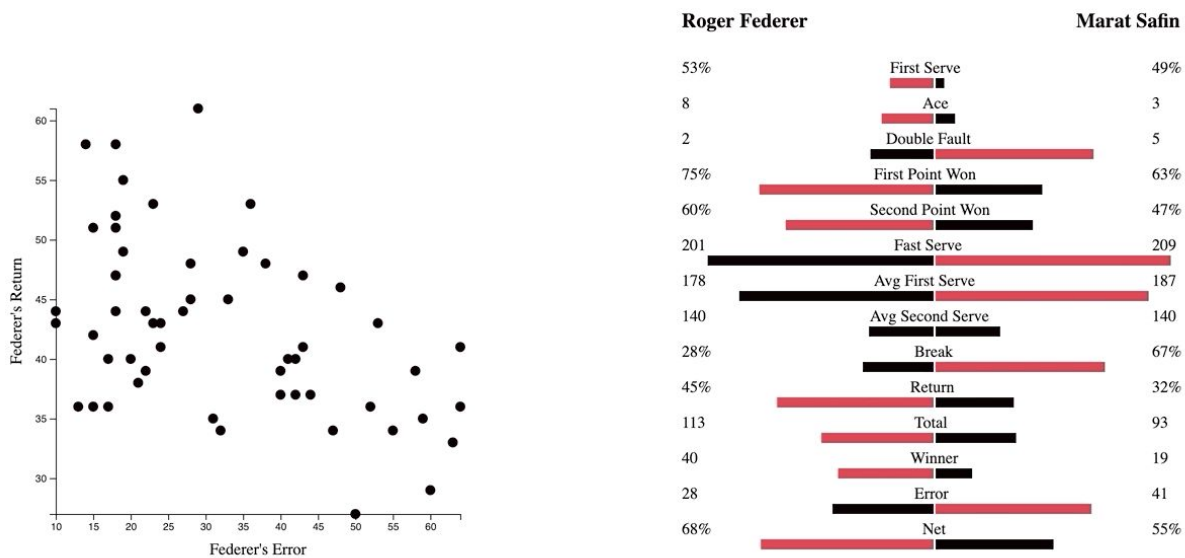


Assignment #2: Interactive visualization



Visualization Link: <https://vishaldodiya.github.io/dv-assign2/>

• Data Analysis:

- For the current plots I only need data in which Federer had played. So I filtered only matches in which Federer is one of the players and removed other row.
- Also, I found that there is some match data which has NULL, empty or garbage value which does not show effective results in the visualization so removed those rows which have unwanted data.
- No columns are changed or removed because the bar chart needs all the match stats to create the visualization.

• Story:

- Federer's Australia Open career has a significant influence on his error rate and return values.
- Roger Federer has a very low error rate and most of the points are achieved by playing sharply and making opponents make more errors.
- So, to visualize the story, One scatter plot for Federer's error vs return value is shown and to see more detailed stats of the match, each scatter plot updates the match stats in horizontal bar chart plot.

The Visualization contains 2 Plots.

• Scatter Plot (Federer's Error vs Return)

- Plot shows all Federer's matches and plots his Errors and Return stats scatter plot.

- The scatter plot is created to visualize Federer's Error during a match against the Risk taken by returning efficiently.
- So, as we can see Federer has relatively lower error than his opponents and returns are high so he tries to take more risk and tries to make opponents make more errors to win the match.
- **Horizontal Bar Chart (Match Stats)**
 - Plot is a horizontal bar chart, showing both player's stats.
 - The plot data changes as we hover over scatter plot data which shows each match Federer has played.
 - The bar chart shows significant value with red color means the high value in each feature. For example if in first serve if player2 has a higher value than his bar will be shown red. The goal is to visualize significant values easily.