

MATH 3570 Final Project Proposal

Block Blasters: Riley, Lucy, Emma, Brianna, Napoleon

Title: Play, Predict, Profit?

Description of Data Set: NFL Betting Data (info about teams, performance, and weather since 1966): https://www.kaggle.com/datasets/tobycrabtree/nfl-scores-and-betting-data/data?select=nfl_teams.csv potentially paired with <https://www.kaggle.com/datasets/nickcantalupa/nfl-team-data-2003-2023> which has more specific team data from 2003-2023

Goal of Project: We will teach about various packages from [HTMLWidgets](#) and explain how using this adds convenience because of its ability to easily insert graphs into a website or web page. We will create one webpage that has various subpages for the different functions we will each choose to teach. We will make it cohesive by all using the NFL Betting and Team Performance datasets, and then have live demos of the various outputs after explaining the basic purpose and input for each function.

Members Duty:

Riley – I will explore the rglwidget package and explain all the important functions and their arguments. Then I will make an example of using rglwidget to code a 3D, interactive graph of our dataset.

Brianna – Leaflet (Geospatial Mapping), I will use leaflet widget which is a geospatial mapping tool using the state, stadium and weather parts of the data. I will use this to showcase how you can use this package to create dynamic maps with annotations, markers, polygons, and zooming.

Napoleon – I will use networkD3 to show the relationships between teams in NFL betting data and the NFL team data to find out which teams are similar and different from one another. This can be used for future sports betting and serves as an interactive/satisfying graph to observe and view.

Lucy – I will create the website we use to show our visualizations, organize the subpages, put everything together, and explain this process as well as our data set.

Emma – I will use the visNetwork widget to display each conference, division in each conference, and team in each division to provide an example of how the package is able to create interactive visual data, and demonstrate how the widget can simplify complex ideas or data by creating a model, which allows users to visualize the data to make comprehension easier