Capstone Two Step 0 - 3 Ideas

1. Telephone Sales Analysis to Target Customers Most Likely to Buy Product
   1. Dataset - <https://www.kaggle.com/datasets/joanpau/bank-telemarketing-uci>
   2. My goal in this Capstone will be to dig into the data provided on Telephone Sales from a bank looking to sell additional products to existing customers. This data set has some great demographical data along with data on the financial status of the customers reached out to along with the amount of potential contacts it took to reach customers. This will allow me to do a deep dive analysis on which customers to reach out to with the most statistical likelihood to purchase the products being sold. The data will also allow me to make statistically relevant observations on the average amount of phone calls it will take to make a sale which is very relevant for the sales employees of the bank. An important part of sales is having a grasp on the amount of activities a salesperson needs to do on a daily basis to be successful and having a good baseline for the amount of “touches” it will take to get in contact with a customer and secure the business is very helpful to planning daily call activities.
2. NFL Sports Betting Analysis Against the Spread
   1. Dataset - <https://www.kaggle.com/datasets/tobycrabtree/nfl-scores-and-betting-data?select=spreadspoke_scores.csv>
   2. My goal for this capstone will be to find statistically relevant trends in sports betting using data for betting spreads in the last 10 years of NFL games. I want to generate at least 3 statistically important trends which could sway how bets are made on NFL games. Specific importance will be given to observed statistical variance and how that compares to chance. Nothing is gained if the statistical variance observed is less than the 50% chance of choosing right simply based on chance. Things I will be specifically looking into will include home versus away teams, previous record of teams before the game, night games versus day games, and weather. I will compare the results of those games and how they stack up to the betting lines like over/under, spread, and team favored to win.
3. NFL Drafting Analysis for Finding Best Value of Players Drafted
   1. Dataset - <https://data.world/sportsvizsunday/nfl-combine-data>
   2. My goal for this capstone will be to use NFL draft combine data along with NFL player statistics to try to model trends that teams can use to draft players with higher statistical chances of being successful in the league. The NFL combine offers a great opportunity to compare baseline athletic markers shown at the combine with career statistics of the players. I expect to do this analysis by position type to keep the player data cogent as you wouldn’t try comparing quarterback and offensive lineman. I plan to compare at least 3 position types and try to find statistically relevant combine data for each of those 3 positions. If I can find at least one data point per position for three position I will consider this a success but it’s entirely possible I’ll find more then one.