Process

1. Dealing with data without being given a problem statement.
    a. Learn how to formulate questions based off given data sets
2. Connections to the CAP process
    a. Get exposure to the process and dealing with professional projects
3. Data Cleaning and presentation skills
    a. Ties back to bullet number 2
4. Find multiple approaches to a singular problem
    a. We planning on using machine learning and neural nets to solve the same problem statement to test effectiveness of each model.

Methodology

1. Get experience with Neural networks.
    a. Software development
    b. Forecasting skills?
    c. Prediction of outcomes
    d. Pattern recognition
2. Get more experience with machine learning
    a. Forecasting skills
    b. Software development
    c. Prediction of outcomes
    d. Lasso
    e. Ridge

Applications/ Context

1. Image recognition
    a. Sort/ characterize ships
2. Computer vision
3. AI decision making
4. Language interpretation
5. Analyze relationships between SAT math score and GPA

Tools

1. Github
    a. Use as a place to dump/ store useful code and other files.
    b. Highlight the effectiveness of working on github for projects in order to hopefully implement into ORCA classes and CAP groups
2. Textbooks
    a. Machine Learning/ Stats- An Introduction to Statistical Learning with Applications in R by Springer Texts in Statistics
    b. Neural Nets-
3. Python connected to R

    a. We plan to use python as an alternate way to clean the data and then run the R code

Output

1. Improve technical writing
    a. Ties back to the CAP project
2. Presenting cool projects at research symposium
    a. Use technical writing and power points