­­­­Capstone Project Proposal

**Project 1: League of Legends**

<https://developer.riotgames.com/>

Riot is a video game company that has created a game idea for data analysis. Two teams of 5 people vie to push their troops into the other team’s base. The game has many aspects to study: characters chosen, items purchased, vision of the map, etc. to name a few. Using Riot’s API, I could gather all the data needed on ranked games and then analyze the data to build a program that cold guess which team will win in a match. Some key things to analyze:

* Is the matchmaking algorithm able to equally match teams, or is there a bias?
* Study meta info: certain characters/items that are strategically advantageous.
* How likely a team is to win based on how they control vision of the map and enemy movement.
* The likelihood of a team losing due to 1 teammate having a low ability/history of trolling etc.

This might be too adventurous to start with. Not sure if the API returns information in a way that I can use it with limited coding experience.

**Project 2: Housing market**

<https://www.kaggle.com/c/house-prices-advanced-regression-techniques>

Using a Kaggle competition based around predicting housing prices off a cumbersome list of qualities. This would give plenty of experience with managing a dataset having many different columns that could determine the pricing aspect. I also know it’s manageable and ready to go. I wouldn’t have much to do with cleaning up the data though if I do this project, but it provides probably the best data set and plenty of work without becoming a problem down the road.

**Project 3: Animal Shelter**

<https://catalog.data.gov/dataset/austin-animal-center-intakes>

<https://catalog.data.gov/dataset/austin-animal-center-outcomes-version-1-demo>

With both incoming and outgoing data for an animal shelter, I could merge the two datasets and use it to predict the likelihood of an animal being adopted. This would be based on the data provided such as if an animal was adopted or not, the length of time in the shelter, age, breed, etc.