Selwyn Davis Jr
Capstone Project Proposal

1. **What is the problem you want to solve?**

   It is often difficult to analyze and predict the performance of athletes in any given sport. Being able to do so gives casters, journalists and even casual players the ability to look at a particular game without bias and make educated predictions. I'd like to perform an analysis on professional League of Legends games to gain deeper insight into the game.

2. **Who is your client and why do they care about this problem? In other words, what will your client DO or DECIDE based on your analysis that they wouldn't have otherwise?**

   The data and analysis that I'm going to be conducting has the potential to be useful to a number of clients. My first inclination is to use the results of my analysis to predict scoring in fantasy leagues for League of Legends. My analysis will allow Riot Games to provide clear predictions and advice to users of their fantasy league. Riot Games also usually provides plenty of data powered insights during their broadcasts in order to better convey arguments about individual team performance. Alphadraft is another company that would be able to use this data effectively as they run their own fantasy sports league, but with money on the line.

3. **What data are you going to use for this? How will you acquire this data?**

   I'm going to collect data from the 2015 season of professional League of Legends in the North American Region. The data is available on the lol.esports website so I'll be scraping the data directly from the site or using an api if there is one provided.

4. **In brief, outline your approach to solving this problem (knowing that this might change later).**

   In order to predict performance I'm planning on collecting all the data from the Spring and Summer Splits from the 2015 North American LCS and do my best to identify the stats that best predict fantasy performance for players. I'm hopeful that a player's average performance will be indicative of their future performance as well. I would also like to factor an enemy's performance into their potential fantasy score.

5. **What are your deliverables? Typically, this would include code, along with a paper and/or a slide deck.**

   I will be delivering code that analyzes player performance and hopefully be able to build a model that uses this data in order to predict how a particular team or player will perform given a particular opponent. The data will also allow me to create a number of visualizations that will be useful for fantasy sites as well as professional League of Legends broadcasts.