Final Proposal

For the final project I plan to use a dataset found on Kaggle that tracks the results of high-ranked games in the video game, League of Legends. This data set analyzes 10,000 games and tracks 40 variables for each of those games. The dataset tracks wins between red teams vs blue teams. I would like to see what factors lead to more blue team wins. Since this would be a categorical variable I would like to use discriminant analysis and try out a support vector machine to analyze this data.

I think both competitive and professional teams would be interested in this information to try and increase their win percentages. I also think Riot Games, the developer of League of Legends would be interested in this analysis in order to help them balance the game better.

Link to dataset: [https://www.kaggle.com/bobbyscience/league-of-legends-diamond-ranked-games-10-min/data#](https://www.kaggle.com/bobbyscience/league-of-legends-diamond-ranked-games-10-min/data)

Sounds interesting! - I agree that LDA/QDA and SVM sound reasonable for this data set. But are there too many categorical variables (-> non-normal) that you'd need to remove from the data before LDA/QDA? Be sure to check the assumptions for LDA/QDA. - I like the idea of interpreting what factors contribute to wins. Think about how you can get this info out of your model. A good way to help make sense of the interpretations of variables is to create a data frame of made-up values for the various variables, and then make predictions for them. You can use this, e.g., to make a graph of "Predicted probability of a win, as a function of blueExperienceDiff," with different lines for different (constant) values of other variables. - Based on the variable names, it seems likely that you'll have some correlated predictors. Because interpreting the model is an important goal for you, I'd recommend fitting your models on various subsets of variables (perhaps chosen by stepwise logistic regression) and selecting the best subset by CV, rather than using PCA for variable reduction.