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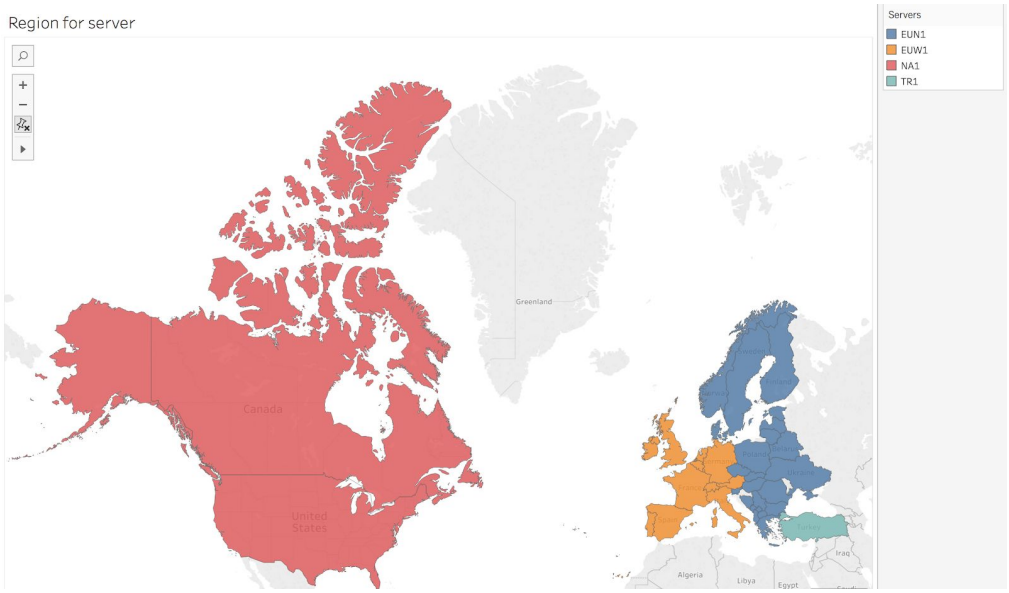
League of Legends Final Project

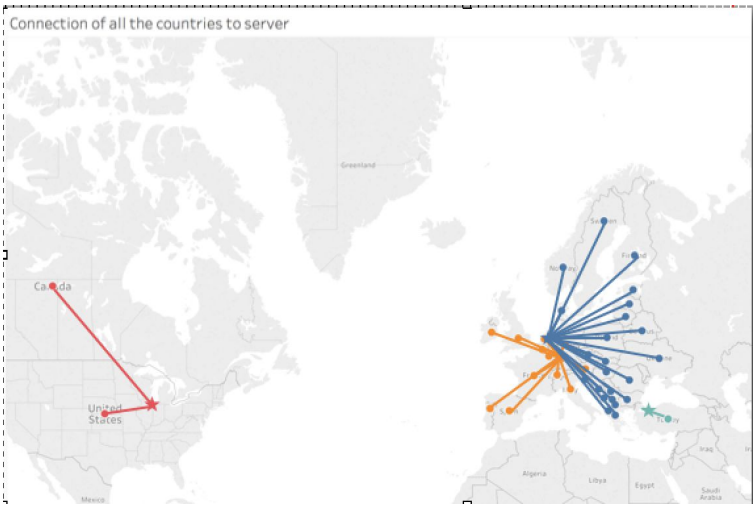
I chose the League of Legends ranked data set for the final project. This data set encapsulated all the ranked matches for league of legends in four different regions from 2014 to 2017. I got this data set from Kaggle where there was an interested party who wanted to find interesting correlations for multiple in game features. I have played League of Legends since 2011 and have been stuck in the same ranked ladder for multiple seasons. What I wanted to do was to understand how I could improve my game and rank. The following plots were made in tableau so they are all interactive but are screenshotted to be put into the paper.

As a basic background, there are four different server regions where the data is taken from. Here are the geographical locations where the servers influence in general.



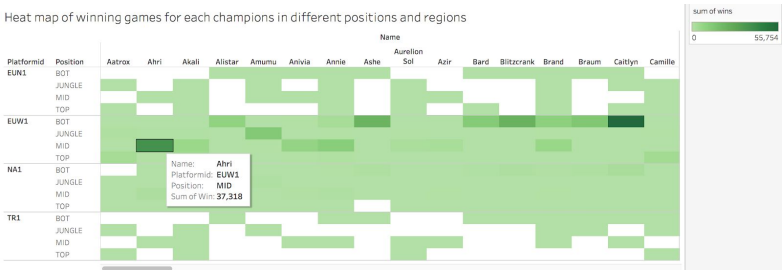
For each of these regions the physical server locations are located in 4 central cities.

The following is a connection map of all the countries to the respective server locations.

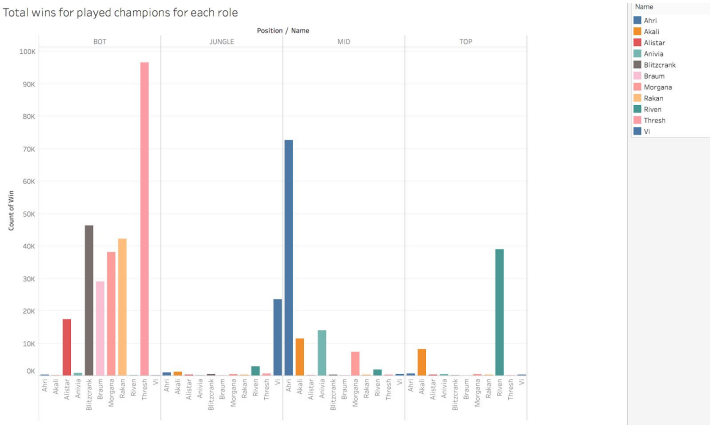


What was interesting to see was that the EUN server (Europe Nordic server) was not located in the middle of the cluster of countries that access it.

I became curious on the popularity of each champion for each region and for each role. So i made a heat map of it and the color hue is based on the number of wins.

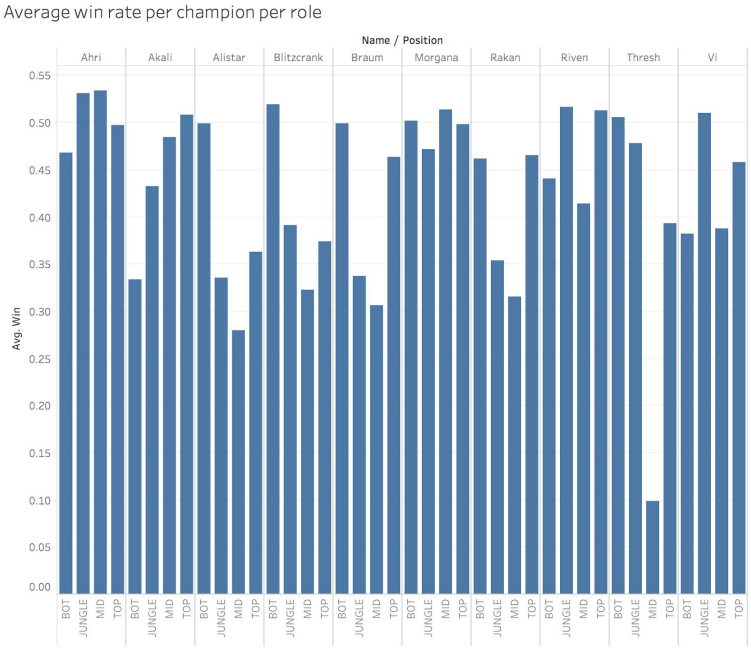


Now by just looking at the characters or champions that I play which one would give me more chances to win and in which role. The following histogram would give me a generic count of wins for each champion I play.

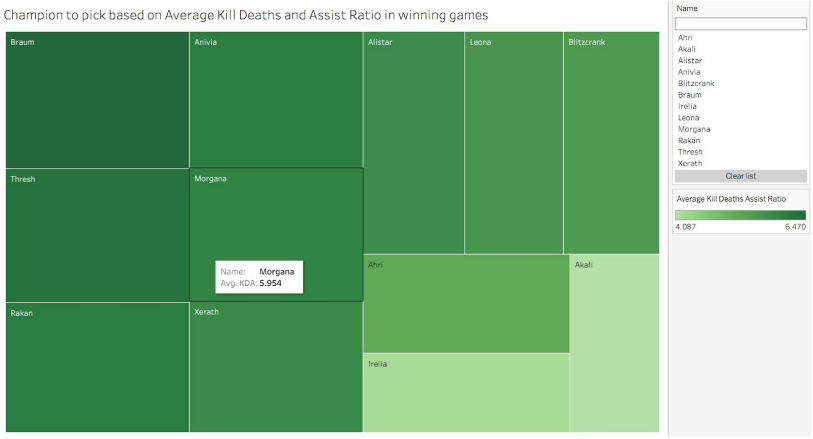


Just looking at the histogram, it seems from my champion pool there are certain champions and specific roles where I am more likely able to win. But the histogram is just a frequency count of wins so perhaps it shows that these champions are played more but the win rate might not be

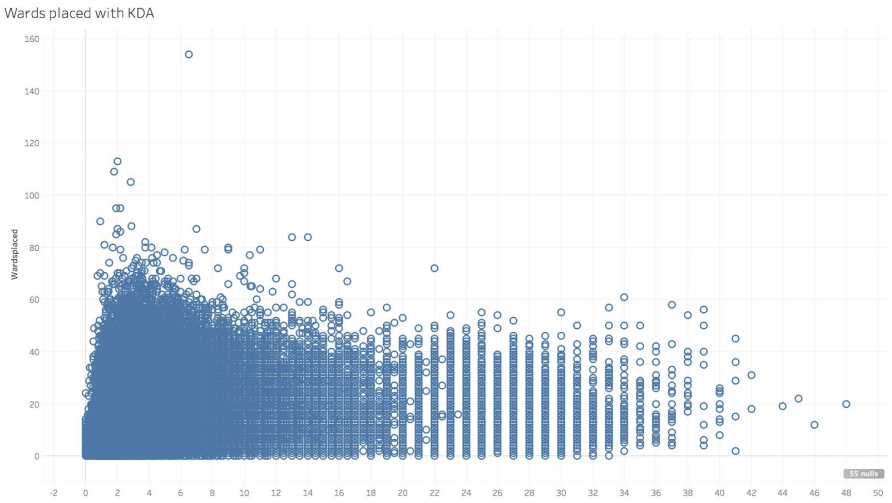
as high. So the following is a bar graph which shows the average win rate for each champion and role.



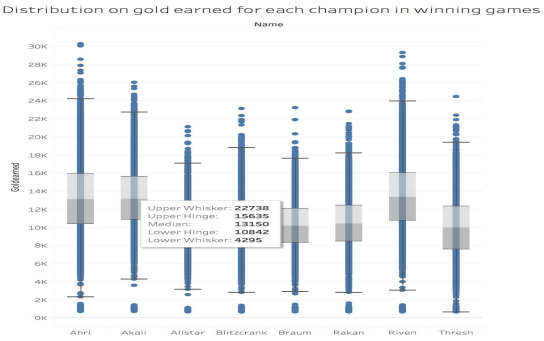
With this bar plot we can see that each champions win rate is around 50% for at least one of the roles. So the champion selection does not really affect my win rate and will not help with climbing the rank ladder. So I wanted to see if there is an average metric I should target in the individual games for each win. So the following treemap will show a metric KDA which represents your kills, deaths and assist ratio. The greener you are the higher KDA you will have in general for winning games.



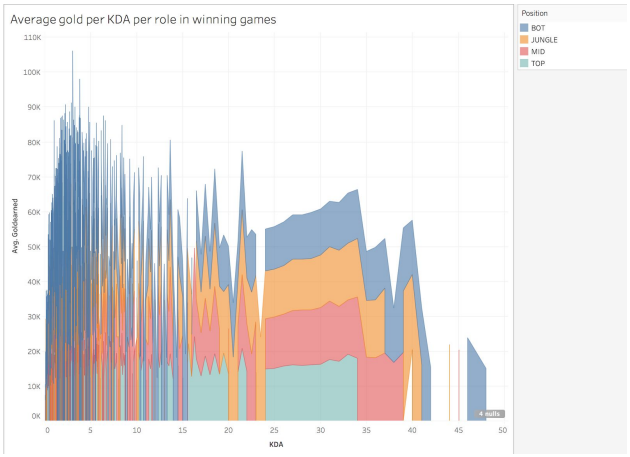
So in the treemap shows that on winning games each champion had an average of greater than 4.0 KDA ratio. Maybe visibility will help with improving my KDA ratio so below is a scatter plot on the relationship with wards which help with visibility and the KDA ratio.



Of all the winning games I was wondering how much gold was needed to earned to win a game per champion. So the following boxplot was made.



Now that I have a rough estimate of how much gold I would need to generate per champion, how much gold per role would I need to make? The following area graph should help with that understanding.



In conclusion I can say from these visualizations I should not really focus on the selection champions that I play to get a higher rank, but try to follow the base metrics in order to win based on each champion.

Github link: https://github.com/Levant3a/data_viz_fin_proj.git

This is where the data set was acquired.
https://www.kaggle.com/paololol/league-of-legends-ranked-matches