

CS 410 Project Proposal

Team Team

Corona Tsai | cstsai2@illinois.edu

Sentiment Analysis on Tweets about LoL

In the past year, the popularity of online gaming seems to have risen in response to global conditions. Friends and family around me have gotten into playing games such as Valorant and League of Legends. In addition to playing for fun, there are professional teams and tournaments organized around these games. Recently, my brother has been keeping me in the loop about the LoL Worlds tournament and how there has been a lot of Twitter drama surrounding various players and teams who are participating. I thought it might be interesting to try to 'predict' the outcome of a game based on sentiment of tweets leading up to and during the game.

I will be scraping tweets about a specific game and determining the performance of each player of the two teams through analyzing for positive/negative sentiments in tweets. Then, based on which team overall had the more positive sentiments, that would be the team predicted to win.

In order to read tweets from the Twitter API, I will be leveraging a Python library called Tweepy. The dataset would be the tweets collected in the period of time surrounding and/or during a particular game that mention the game, the teams playing, and/or the players.

The expected outcome would be to showcase how the viewers perceived each team/player's performances during a game and to hopefully see a correlation between positive sentiments and a team winning. Since I anticipate seeing a correlation between positive sentiments and winning a game, I will evaluate my work by comparing the ratio of positive/negative sentiments of each team and compare that ratio to the pre-match win/loss predictions (from Microsoft Sports).

I plan to use Python.

Workload

| Project Tasks | Time estimate (hrs) |
|----------------------------------|---------------------|
| Learn how to use Tweepy | 2-3 |
| Scraping Tweets & Cleaning data | 5-8 |
| Sentiment Analysis & Predictions | 8-12 |
| Troubleshooting & Testing | 5-8 |
| Demo & Final Report | 4-8 |