CS410 Project Proposal

Group Name: YSA

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Free Topic Selection: YouTube Sentiment Analysis

I would like to propose the use of sentiment analysis on different cosmetic skins for the popular online game League of Legends. Specifically, I will be aiming to apply sentiment analysis on the SkinSpotlights YouTube channel as they have covered many of the different "skins" that are available for purchase in League of Legends. I believe there is value in generating rankings/sentiments of different cosmetics as it essentially functions as a product that is being sold by a company. By doing so we would be able to garner data from the YouTube comment section, providing insights towards which skins are popular/in demand and which are not.

I would need to use a YouTube scrapper to extract the comments of the relevant videos to be fed to NLTK's sentiment analysis to create a sentiment score for each skin. The scores for the different skins will then be mapped to the specific champion to attempt to rank the most popular skin for each champion. This ranking will then be compared to the survey taken on reddit for 2022 for each champion skin to see if it matches up. While the 2023 ranking survey has not started yet, this sentiment analysis could predict if any new skins that were released in 2023 may top off the list as new favorites.

This project will mostly be done in python, and an interactive frontend will be created to view the data. First, I would need to find a way to scrape the comment section of specific videos within a YouTube channel. Next, I would need to clean the data to make sure it can be used with the NLTK Sentiment Analyzer. The collected data needs to be grouped per champion, then ranked for comparison to the survey collected. Lastly, I would need to scrape the champion skins proposed in the survey to prepare an evaluation for my final sentiment analysis.

The data will then be passed to a frontend so users can filter the results by individual champions to see which skins were the most well received on YouTube compared to the results gathered from the survey performed on reddit.

https://www.youtube.com/@SkinSpotlights

https://www.reddit.com/r/leagueoflegends/comments/124kb99/best_skins_per_champ_2022/