



VALORANT

Agenda

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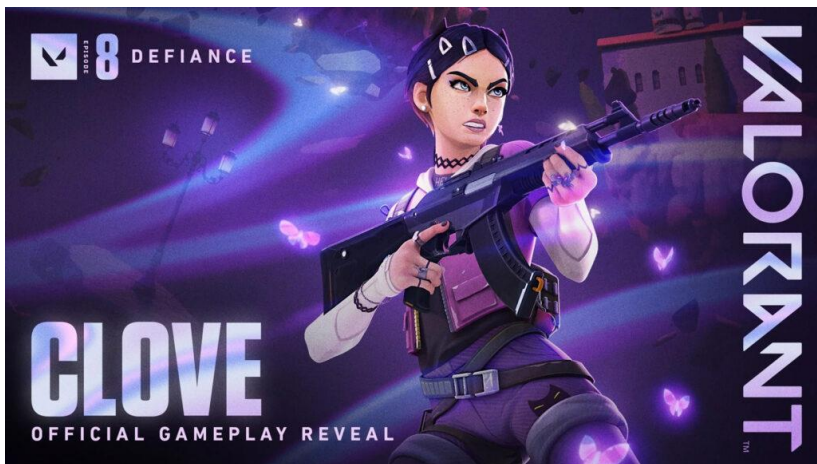


Introduction

- **Valorant**, a free-to-play first-person tactical hero shooter developed and published by Riot Games
- Released on June 2, 2020
- Estimated 19M total players as of 2024 with a daily average of nearly 5M players
- Players play as one of a set of Agents, characters based on several countries and cultures around the world



Problem Statement



- The 25th agent, **Clove** debuted in the game alongside patch 8.05 on 26th March 2024
- What are people's reactions to the new agent before and after its release?
- We conducted sentiment analysis on people's discussions on Reddit



Data Collection

Collected the Reddit's comments using PRAW from Reddit's below five subreddit

Subreddit	Subscribed Users	# of posts per day	Collected count
r/Valorant	2 million	~9	7489
r/ValorantCompetitive	222k	~1	3380
r/ValorantPBE	40k	~1	600
r/ValorantClips	22k	~2	432
r/Eggwick	25k	~3	826

To optimize storage and retrieval efficiency, we implemented storing data from CSV to MySQL database due to the large volume of data from these subreddits.



Data Pre-Processing/Challenges

Pre-processing the collected data involved removing filler and stop-words to enhance its relevance for further analysis.

Challenges

- The character name "clove" inconsistently appeared as "cleave," potentially causing confusion in preprocessing.
- Some gamer verbal expressions were accidentally removed, risking loss of valuable context.

Solution

- Developed logic to handle "clove" variations, maintaining accuracy.
- Refined preprocessing to retain crucial gamer expressions for comprehensive data processing.



Sentiment Analysis

Implemented sentiment analysis on pre & post-release dataset

Google Bert:

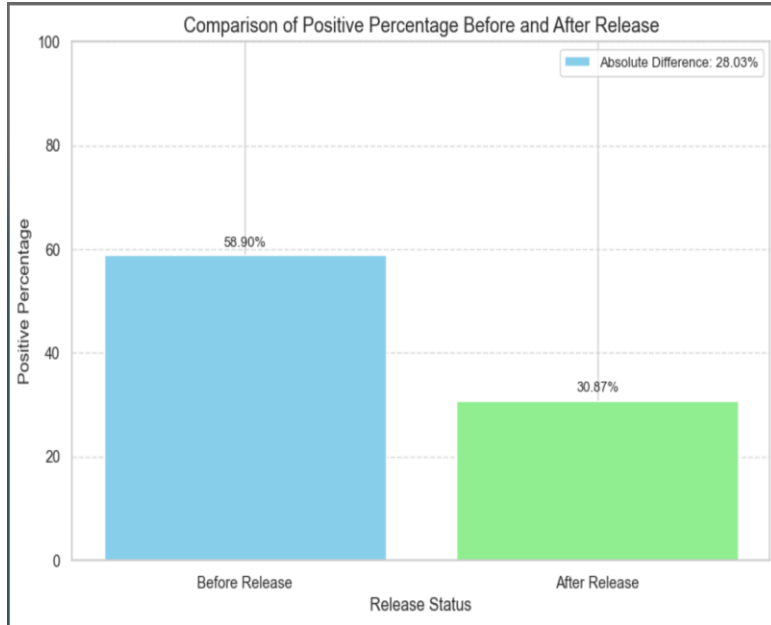
- Training Data Set - IMDB Data set
- Challenges – Longer execution time to train model, incorrect sentiment predictions due to context mismatch in IMDB and reddit comments

Llama 2:

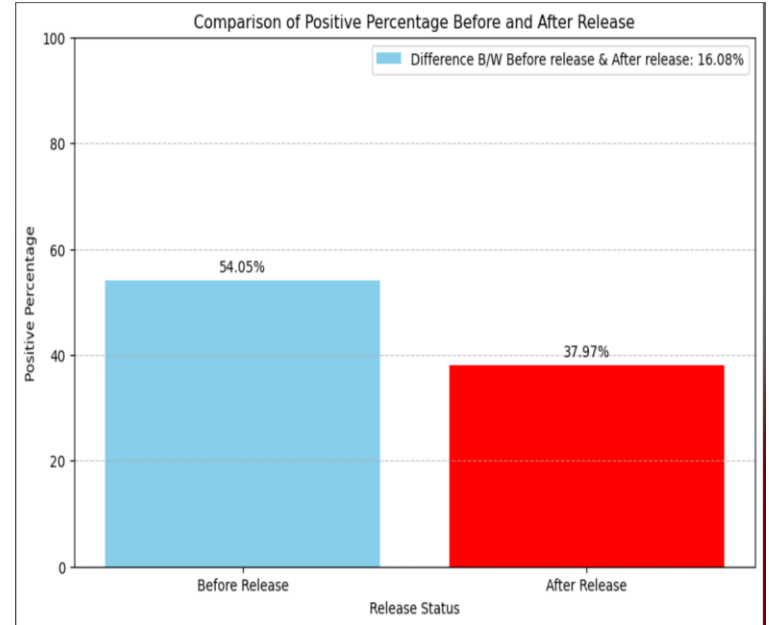
- Ollama - used to run Llama 2 LLM locally
- LangChain - used to interact with Ollama Llama 2
- Challenges - prompted to download models from paid sources and pay for collab pro due to extensive CPU utilization, giving csv files as input



Insights from Analysis (BERT)



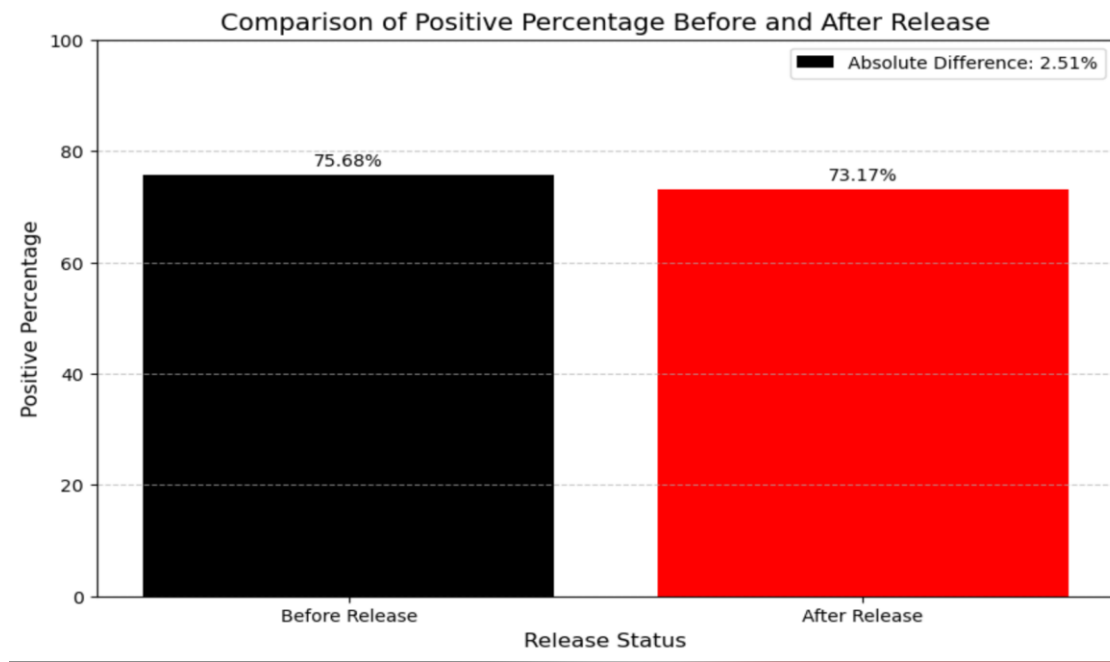
BERT's Sentiment Analysis for Raw Data



BERT's Sentiment Analysis for Filtered Data



Insights from Analysis (Llama)



Llama 2's Sentiment Analysis for Filtered Data



Data Modelling

- Data modelling is crucial for extracting meaningful insights from data.
- LDA (Latent Dirichlet Allocation): Probabilistic topic modeling technique used to discover hidden topics within a collection of documents or texts.
- Topic modelling done on 4 distinct groups of data formed by sentiment analysis:
 - Before Release Positive Comments
 - Before Release Negative Comments
 - After Release Positive Comments
 - After Release Negative Comments



Data Modelling (WordCloud)

Top 10 topic in Negative comments of Before Clove



Top 10 topic in Positive comments of Before Clove



Top 10 topic in Negative comments After release of Clove



Top 10 topic in Positive comments After release of Clove

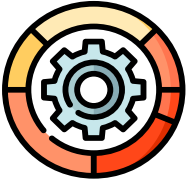


Future Scope



Enhanced Data Collection

- Collecting additional pre-release data for improved sentiment analysis
- Exploring data from other social media platforms



Advanced Data Processing:

- Refining keyword filtering for precise analysis
- Implementing advanced algorithms for optimized insights



Optimized Data Management:

- Considering NoSQL for scalability with unstructured data



Automated Data Retrieval:

- Deploying API Wrappers on remote VMs for continuous data retrieval



Valorant Community's Reception of Agent Clove

- Consistent Themes:
 - "Smoke" remains a critical point of discussion pre and post-release
 - Persistent mention of "pronouns" signals ongoing gender identity conversations
- Evolving Discussions:
 - Transition from speculative "hype" to actual gameplay focus on "ability" and "ult."
 - Pre-release concerns about competitive fit lessen post-launch
- Sentiment Improvements:
 - Positive reception of Clove's "abilities" post-launch suggests exceeded expectations
 - Clove is embraced as an "aggressive controller," fitting the desired playstyle
- Areas for Attention:
 - Recurrent misgendering highlights the need for community education
 - Negative comments on "team" and "lurk" suggest potential issues with team dynamics





Thank You!

