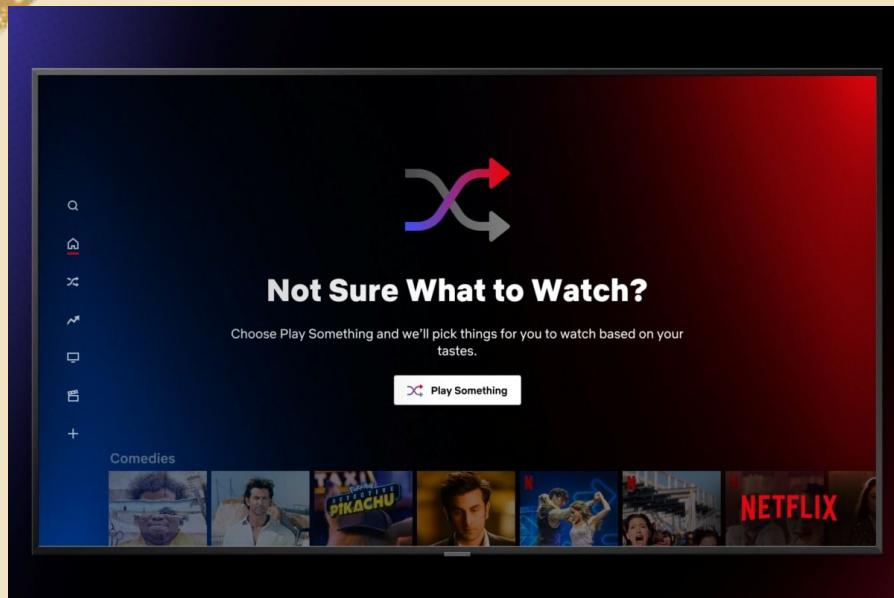


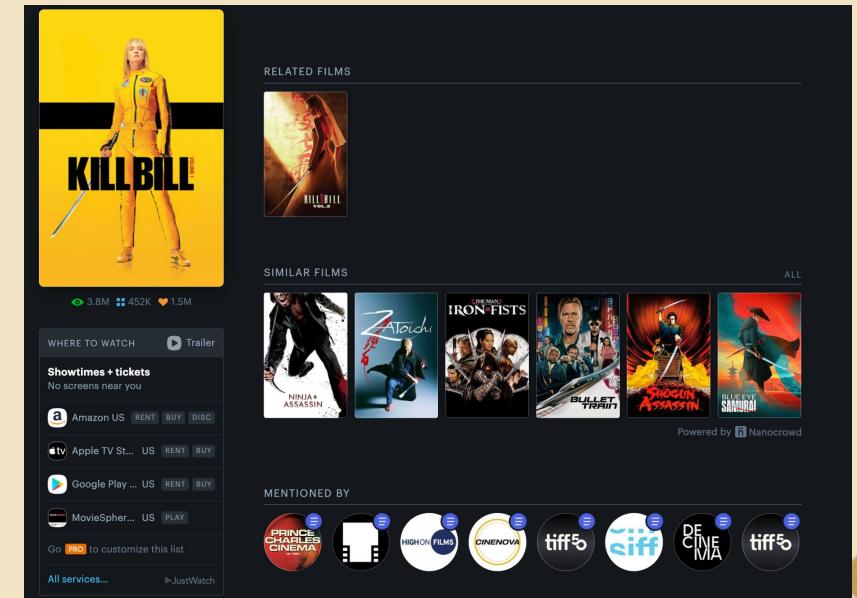
# **Movie Recommendation System**

**Eric Zhang, Eric Li, Christine Chen, Dhruv Chavan**

# What Drove Our Project

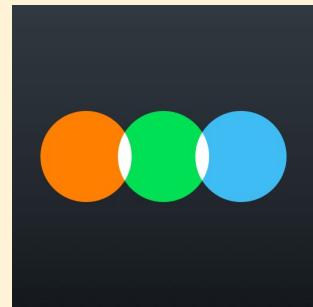


**Netflix**



**Letterboxd**

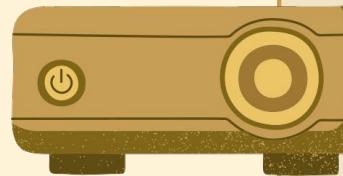
# System Overview



**1.** Determining a user's taste



**2.** Recommending trending movies accordingly



# Data Gathering

User History



Trending

Movies



International

Movies



# Preprocessing

**Multi-Hot  
Encoding**

**List features:**

- genres
- actors

**TF-IDF  
Vectorization**

**Plot:**

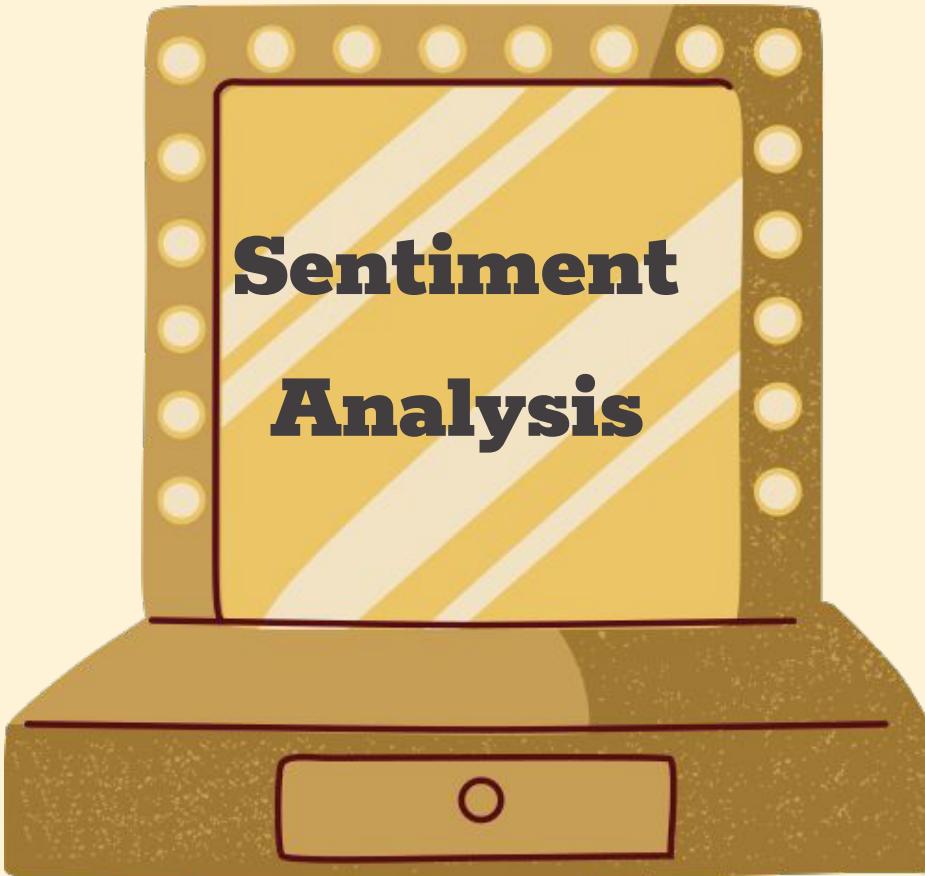
- text

**One-Hot  
Encoding**

**MPA ratings:**

- R
- PG-13
- PG





- VADER Sentiment
- Filtering out the “meaningless” reviews
- Getting the compound score





# Recommendation System

01

**Weighted Cosine Similarity**

calculates similarity between two movies' feature vectors

02

**Find Representative**

largest total similarity with all other movies

03

**k-NN Search**

calculates euclidean distance between movies in trending dataset

The background features a dark red theater stage. On either side, large red curtains with white stripes are pulled back, revealing a dark stage area. In the foreground, six red theater chairs with dark, textured backs are arranged in a row, facing towards the center of the stage.

**Thank you!**