

Netflix Wrapped

Members:

Kaylan Wang (kaylanw4@illinois.edu)

Megha Chada (megharc2@illinois.edu)

Krish Patel (krishp2@illinois.edu)

Summary (Kaylan):

Netflix Wrapped is a web-based application that aims to provide users with personalized insights into their Netflix viewing habits, similar to the “Spotify Wrapped” concept. Users will be able to input their Netflix history and get a variety of metrics, such as favorite genres, total number of hours watched, which month had the most hours viewed, etc. The goal is to offer a fun and interesting look into a user’s entertainment consumption on Netflix, allowing them to discover trends and patterns in their viewing habits.

Description (Megha):

We aim to develop a web application that uses a Netflix user’s watch history to give insights on their data. We want to provide users with an overview of their viewing habits and offer detailed metrics and trends in their history. Additionally, by analyzing these metrics, we could even offer more recommendations to users based on their watch history. We aim to create an intuitive platform that shows past metrics for users in an interesting format that users can use easily. The application will use both the user’s Netflix history which they input as well as a dataset with information on movies and tv shows that are currently available on Netflix.

This application addresses the shift towards content being curated for users and giving users insights on their content consumption. It allows users to look at their past entertainment choices and have a deeper connection with the content that they consume on a daily basis.

Creative Component (Megha):

A creative component to enhance the functionality of this application could be to implement an algorithm that uses the insights gained from a user’s Netflix watch history to give personalized recommendations. This would involve using a filtering algorithm to look at the user’s viewing patterns, preferences, and amount of content consumed to then suggest new content that they might also enjoy based on the information from the dataset that describes tv shows and movies on Netflix now.

The application would have to first analyze the user’s inputted watch history and connect the titles to descriptive information such as genre, ratings, and reviews from another dataset. Then,

the algorithm would see certain similarities and give the necessary recommendations for new content that the user has not watched before. This feature would be displayed at the end of the “wrapped” insights as a conclusion. The application will show the user all the necessary insights that are calculated and then move on to giving the proper recommendations.

Usefulness (krish):

The web application will be useful in several ways. Firstly, the user can gain personal insights into their viewing habits like favorite genres, total hours watched, etc. Secondly, it can be used for trend analysis. The application will allow users to identify patterns in their media consumption. Lastly, the application can be easily modified to give recommendations on the shows and movies based on the data. Some features that we have thought of are - metrics on data, modifying watch history, keyword search for the media and content recommendation.

The user will have to upload the watch history to unlock all other features on the website. After, the user can see the dataset on a small window themselves where they can delete or update any entry. They will be able to see real time updates of the metrics and potentially the recommendation system. Lastly, they will be able to key search a particular title to see a more detailed metric on it. Currently there are no similar websites on the web.

Realness (Kaylan):

The user will be able to upload a .csv file downloaded directly from Netflix containing a table with the names of the movies and tv shows watched by the user, and the date. We can then use this data to query another dataset containing an up to date catalog of all of Netflix’s movies and tv shows. This dataset will contain metadata for each title, such as genre, release date, ratings, and runtime. The cardinality of this dataset will far exceed that of the user’s dataset (5000-10000) and the degree should be greater than 5 to include all the necessary information. These datasets can be found on websites like [kaggle.com](https://www.kaggle.com).

Functionality (krish):

The web application will allow all the CRUD operations:

Create: users will be able to create a dataset of their netflix watch history containing the name of the show/movie and date watched

Read: keyword searching and displaying personalized insights, metrics and the dataset they uploaded

Update: users will be able to modify any entry in the dataset


Delete: users will also be given an option to delete an entry in the dataset

Apart from that there will be keyword searching functionality. As described before, this can be used to search for a specific movie/show. For some advanced features, we have provided simultaneous updates to the metric when the dataset is updated or keyword is searched using triggers. Procedures that will calculate total hours watched by the user for a specific genre and constraints like checking for dates while forming metrics.

UI mockup :

NETFLIX WRAPPED

Intro to netflix wrapped :




Upload Netflix history

Some Instructions On Downloading Netflix history.

← Search bar

Time watched.



Some metric on the data uploaded.

Most watched movie

Most watched show

Favourite Genre

Most Rewatched

Dataset uploaded by the user	

Name of the show

ADD

DELETE

UPDATE

Movie Recommendation	

Work Distribution:

Currently, the work is being distributed equally between the three team members. The exact steps involved in the backend and frontend are still to be planned and hence cant be divided. All three members will be working on both the frontend and the backend of the project.

For the front end part there are Four main pages

The Upload page - krish

The metric page - all three

The dataset page - kalyan

The recommender page - megha

For the back end all three will be involved in writing the scripts. We have divided the work into features. Krish will be working on the movie recommendation system include machine learning, Megha will be involved in working on the keyword search and kalyan will be involved in working on dataset clean and matching. All three will not solely work on each of these backend parts. The ones that are difficult we be done together. More about delegation of the work will be understood when we get to learn about the types and complexity of these script later in the course.