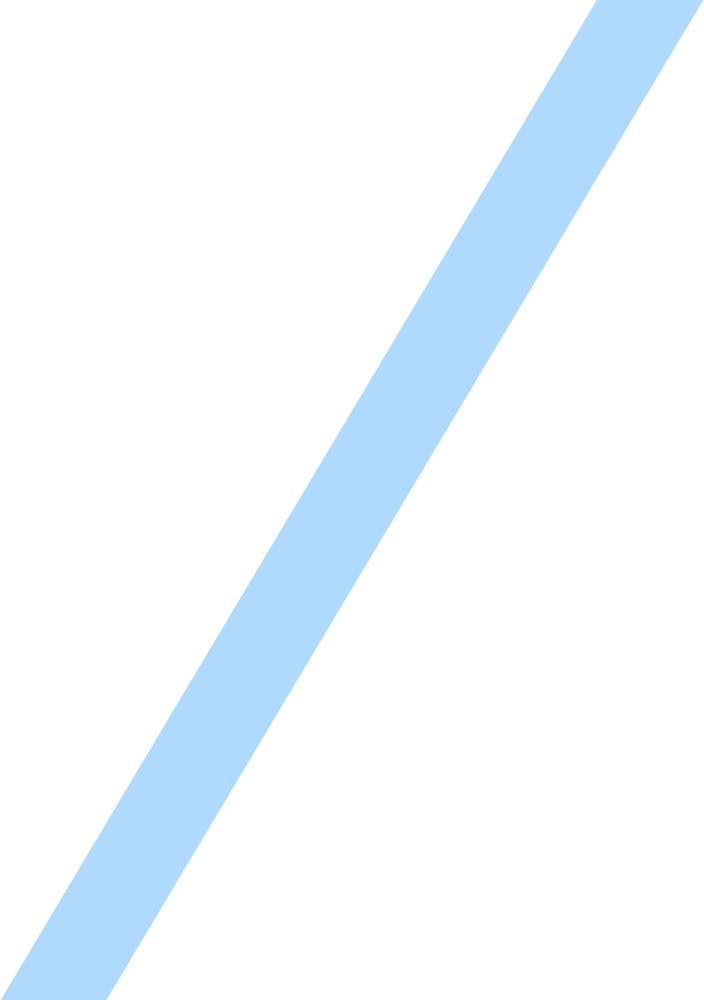
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| TECHNICAL REPORT TEMPLATE |

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| Electrical & Computer Engineering & Computer Science (ECECS) |

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| --- |
| Netflix MovieRecommendation |

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| --- | --- | --- |
| Executive Summary Netflix's aim is to connect people with the movies they enjoy. The goal of this project is to create a movie recommendation system for Netflix. Here, we will learn from data and suggest the greatest TV shows to users based on their own and others' actions. | | |
| person at a table writing in a notebook with people around | | |
| **Team Members:**  **Sravani Burra**  **Sai Charan Jana**  **Sai Pavan Kumar Gopularam** | **Questions?**  Contact : Sravani Burra |  |

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| Technical Report |

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| **Netflix Movie Recommendation System** |  |
| Highlights of Project-To be able to recommend a movie to the user based on the watch history of the userSubmitted on: 05-03-2022 |

## Abstract

On Netflix, there are a variety of movies, TV episodes, and documentaries to choose from, making it difficult to limit down your options. This is when our recommendation system comes into play, which could be directing us to some movies based on the previous viewing habits.

We consider users and movies in any recommendation system. A recommendation system matches content based on similarities between a group of users and a group of movies.

Collaborative Filtering is based on user ratings, and it will suggest movies that we haven't seen but that users who are similar to us have and enjoy. This filter evaluates the movies both users watched and how they rated them in order to assess whether or not they are similar. This type of algorithm will basically forecast the rate of a movie for a person who hasn't seen it yet based on the rates of comparable users by looking at the objects in common.

[Here you can find a few useful tips on coming up with a great pitch](https://www.youtube.com/watch?v=bZTWx2bftaw)

Cover Page

Name of the institutional publisher – IEEE

Title of the report – Movie Recommendation System using Cosine similarity and sentimental Analysis

Names of authors- Harsh Khatter, Nishtha Goel, Naina Gupta

Date of Publication - 01 October 2021

Introductory Section

The goal of this project is to create a movie recommendation system for Netflix. The data I utilized for this analysis came from from Netflix. It is made up of four text data files.

Review of available research

## Multimedia is considered as one of the best sources of entertainment. People of all age groups love to watch movies. Movie Recommender System is essential in our social lives as it enhances the field of entertainment.

The proposed machine learning model is trained, tested, and a sentiment classifier is generated which classify the sentiments as a good or a bad sentiment. The recommender system is generated by applying Cosine similarity and making API Calls. As a result, the live working of the system generates accurate and personalized recommendations along with the analysis of sentiments for the end users. It is also concluded that Cosine Similarity provides better and efficient results for a recommender system.

## 

## Methodology

Data loading

Here, we have two data files

* Movies
* Ratings

There are three columns in the movies.csv dataset

* MovieId: the movie's unique identifier.
* title of the film
* genres: movies genres

There are four columns in the ratings.csv file:

* userId: the unique identifier for the user who rated the film.
* Id: the movie's unique identifier.
* user ratings: each user's rating (from 0 to 5)
* Timstamp: The time the movie was rated.

Data viewing

Here we will have a look at how the data spread:

Data cleaning

Here, we have cleaned the noise from data

Data slicing

The data set now is super huge. Therefore, we tried to reduce the data volumn by improving the data quality below:

* Remove movie with too less reviews (they are relatively not popular)
* Remove customer who give too less reviews (they are relatively less active)

Data mapping

Here we load the movie mapping file.

## 

## Results Section

Text

Description automatically generated

Text

Description automatically generated

## Discussion

Graphical user interface, text, application

Description automatically generated

Text

Description automatically generated

## Text Description automatically generated

## Chart Description automatically generated

## Chart Description automatically generated

## Conclusion

Netflix might meet their customers' needs by gathering information from their watch lists.  Finally, Netflix is encouraged to gain a competitive advantage by closely monitoring their competitors' behavior they give to their customers, before taking their next steps. All these suggestions would help Netflix have a more promising future in the video streaming business.