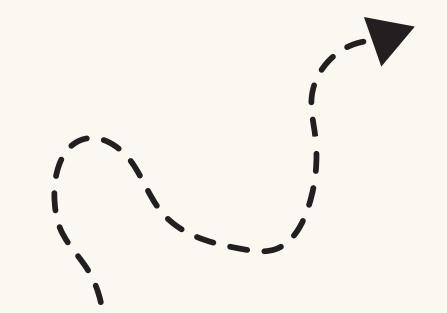




# PROBLEM STATMENT

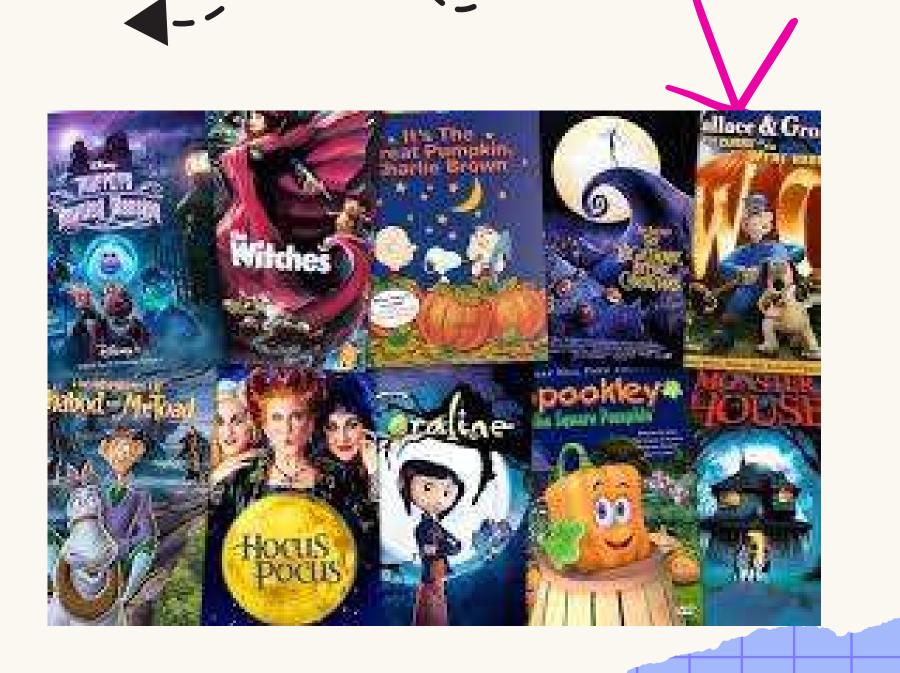
A CineFind, is an <u>ML-based approach</u> to filtering or predicting the users' film preferences based on their past choices and behavior.



Filtration Strategies

### Collaborative Filtering

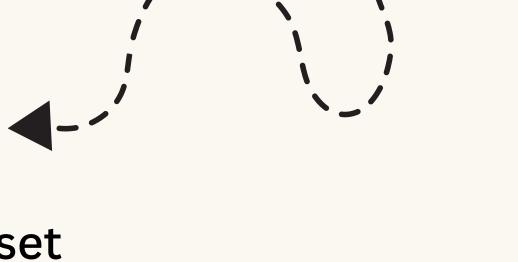
As the name suggests, this filtering strategy is based on the combination of the relevant user's and other users' behaviors. The system compares and contrasts these behaviors for the most optimal results. It's a collaboration of the multiple users' film preferences and behaviors.



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### Movie Datasets





- <u>MovieLens 25M data set</u>
- <u>IMDB Datasets</u>
- <u>Linguistic Data of 32k Film Subtitles with IMBDb Meta-Data</u>
- <u>Film data set from UCI</u>
- Full MovieLens dataset on Kaggle
- <u>Cornell Film Review Data</u>

Detailed Explanation of the Dataset

- id: Unique identifier for each movies
- original\_title: Original title of the movie.
- overview: Brief summary of the movie plot.
- popularity: Popularity score of the movie.
- poster\_path: Path to the movie poster image.
- release\_date: Release date of the movie.
- runtime: Runtime of the movie in minutes.
- vote\_average: Average rating of the movie.
- vote\_count: Number of votes received by the movie.
- genres: List of genres the movie belongs to

imdb_id	original_title	director	production	genre	cast	budget	revenue	runtime	ML-PROJECT
tt0369610	Jurassic World	Colin	Universal Studios	Action	Chris Pratt	150000000	1513528810	124	2015
tt1392190	Mad Max Fury Road	George Miller	Village Roadshow Pictures	Action	Tom Hardy	150000000	378436354	120	2015
tt2908446	Insurgent	Robert	Summit Entertainment	Adventure	Shailene Woodley	110000000	295238201	119	2015
tt2488496	Star Wars The Force Awakens	JJ Abrams	Lucasfilm	Action	Harrison Ford	200000000	2068178225	136	2015
tt2820852	Furious	James Wan	Universal Pictures	Action	Vin Diesel	190000000	1506249360	137	2015
tt1663202	The Revenant	Alejandro Gonzlez Irritu	Regency	Western	Leonardo DiCaprio	135000000	532950503	156	2015
tt1340138	Terminator Genisys	Alan Taylor	Paramount Pictures	Science	Arnold Schwarzenegger	155000000	440603537	125	2015
tt3659388	The Martian	Ridley Scott	Twentieth Century Fox Film Corporation	Drama	Matt Damon	108000000	595380321	141	2015
tt2293640	Minions	Kyle BaldaPierre Coffin	Universal Pictures	Family	Sandra Bullock	74000000	1156730962	91	2015
tt2096673	Inside Out	Pete Docter	Walt Disney Pictures	Comedy	Amy Poehler	175000000	853708609	94	2015

## Datasets based on distribution and genres

#### Release Date Distribution

Date Range	Count
04/17/1902 - 04/25/1914	2
04/25/1914 - 05/04/1926	14
05/04/1926 - 05/13/1938	46
05/13/1938 - 05/21/1950	105
05/21/1950 - 05/30/1962	212
05/30/1962 - 06/08/1974	352
06/08/1974 - 06/16/1986	625
06/16/1986 - 06/25/1998	1,331
06/25/1998 - 07/04/2010	2,745
07/04/2010 - 07/13/2022	4,568

### **Unique Values for Genres**

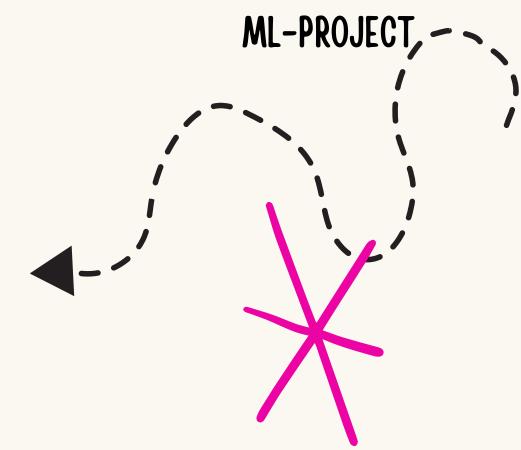
Genre	Percentage	
Comedy	7%	
Drama	6%	
Other	86%	

# How to Build a CineFind

## Data Preprocessing:

Handle missing values.

- Normalize the popularity, runtime, and vote\_average features.
- Encode categorical features like genres, production\_companies, and spoken\_languages.

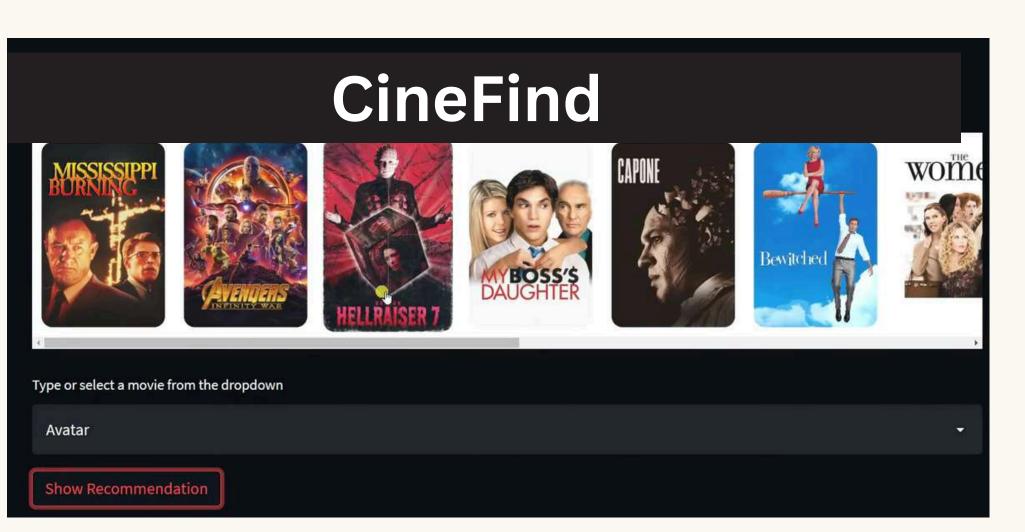


### **CLIENT INTERACTION**

The user finds it difficult to search for films on Amazon Prime and other OTT platforms. We came up with a solution:

### **CineFind website**

Prioritization of content recommendations over search: Amazon's focus on providing personalized content recommendations has led them to prioritize those algorithms over improving the core search experience. Recommending content is seen as more valuable for driving engagement and subscriptions.



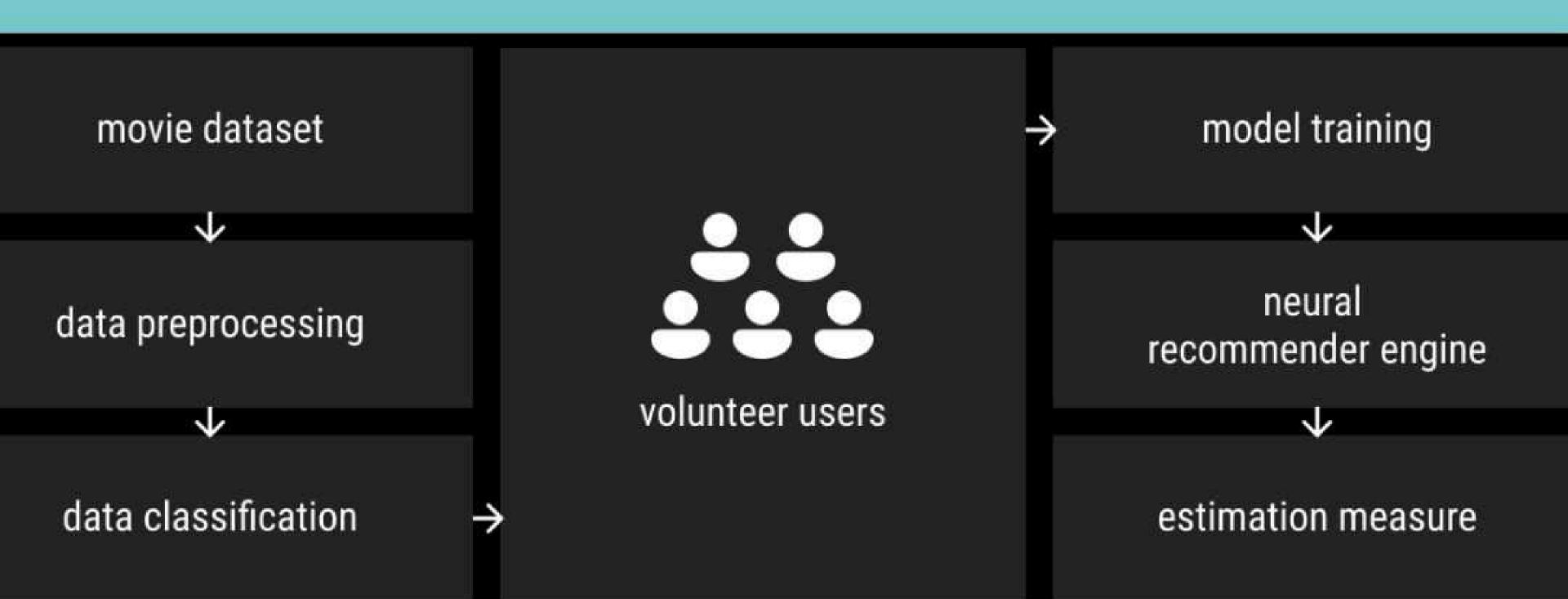




- Name: Harsha
- Occupation:Backend devloper at amazon



# A Neural Network Model for a Movie Recommendation System





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