

Movie Recommendation System



FOREFRONT
AI



MEET THE TEAM



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ROADMAP

Introduction

1

Exploratory Data
Analysis

3

Problem
Statement

2

Model Evaluation

5

Insights

4

Recommendations



INTRODUCTION



RECOMMENDER SYSTEMS

01

Increase Traffic

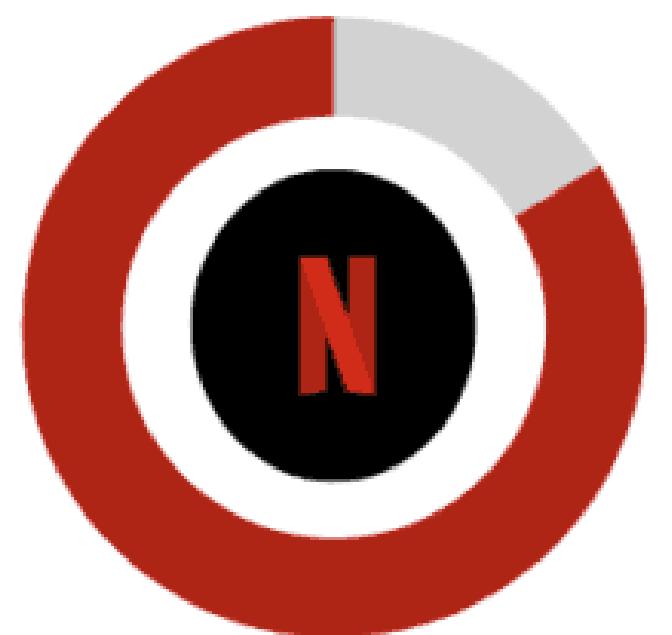
02

Engage Customers

03

Provide Relevant Material

RECOMMENDER SYSTEMS



80%
of content consumed on
Netflix is due to
recommendations.



60%
of video clicks on
Youtube's homepage
are attributed to
recommendations



35%
of its revenue is generated
by its recommendation
engine

PROBLEM STATEMENT

VISION

ISSUE

PROCESS

- Profit maximisation
- Improve user experience
- The scarcity of accurate, reliable recommender systems
- Provide an efficient recommender system.

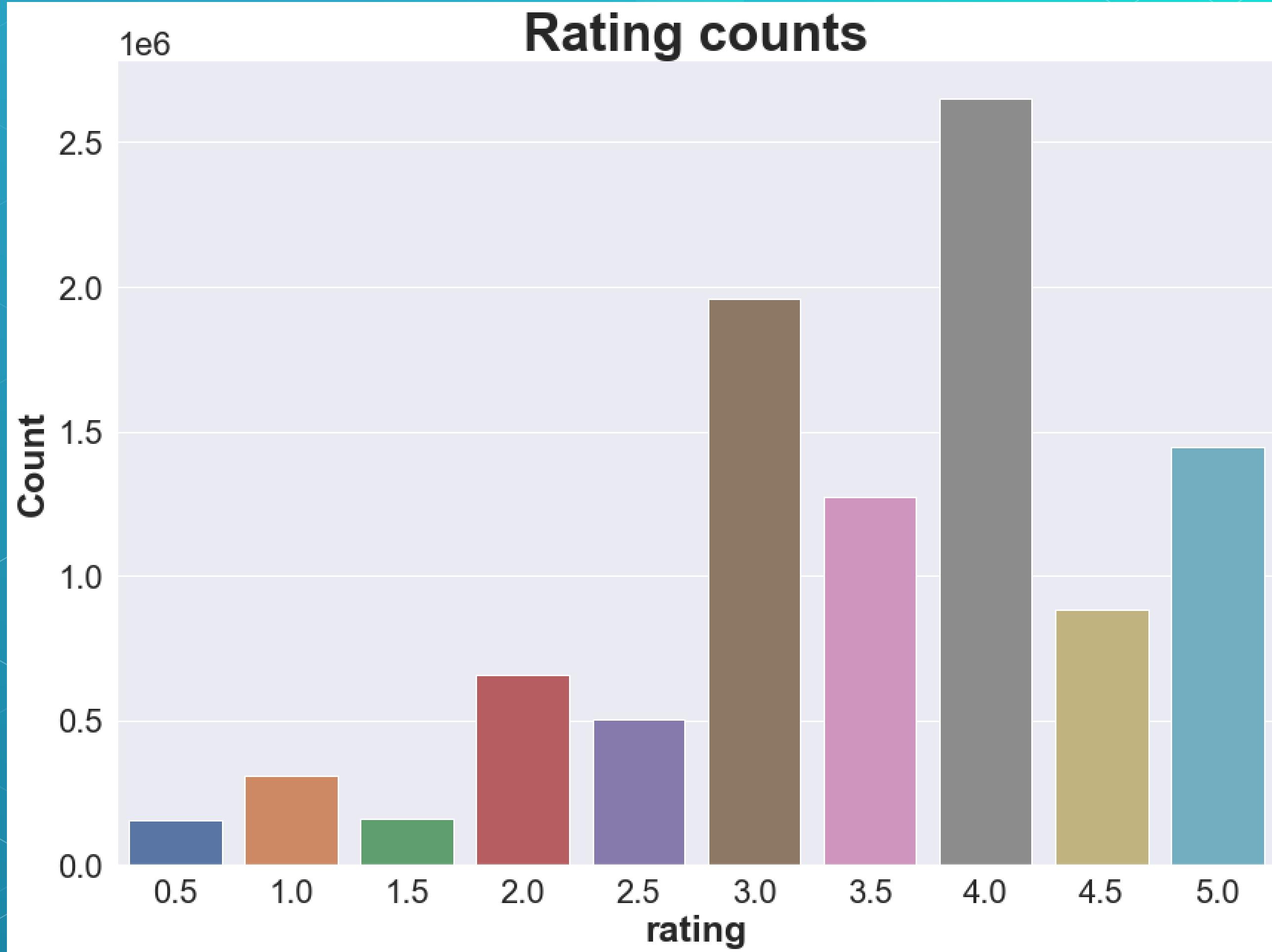
EXPLORATORY DATA ANALYSIS

An approach to analyze the data using visual techniques



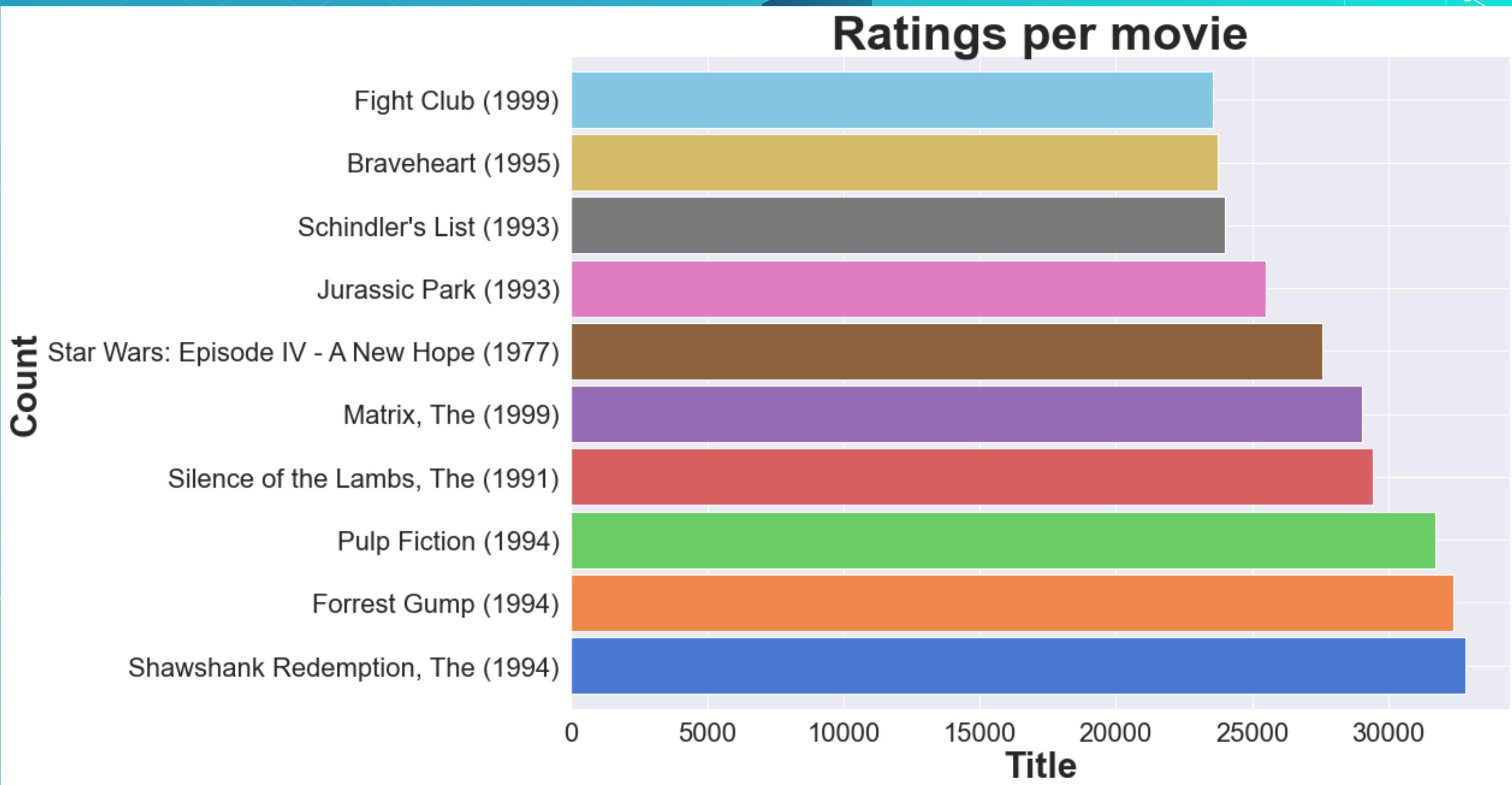
DISTRIBUTION OF RATINGS

Rating counts



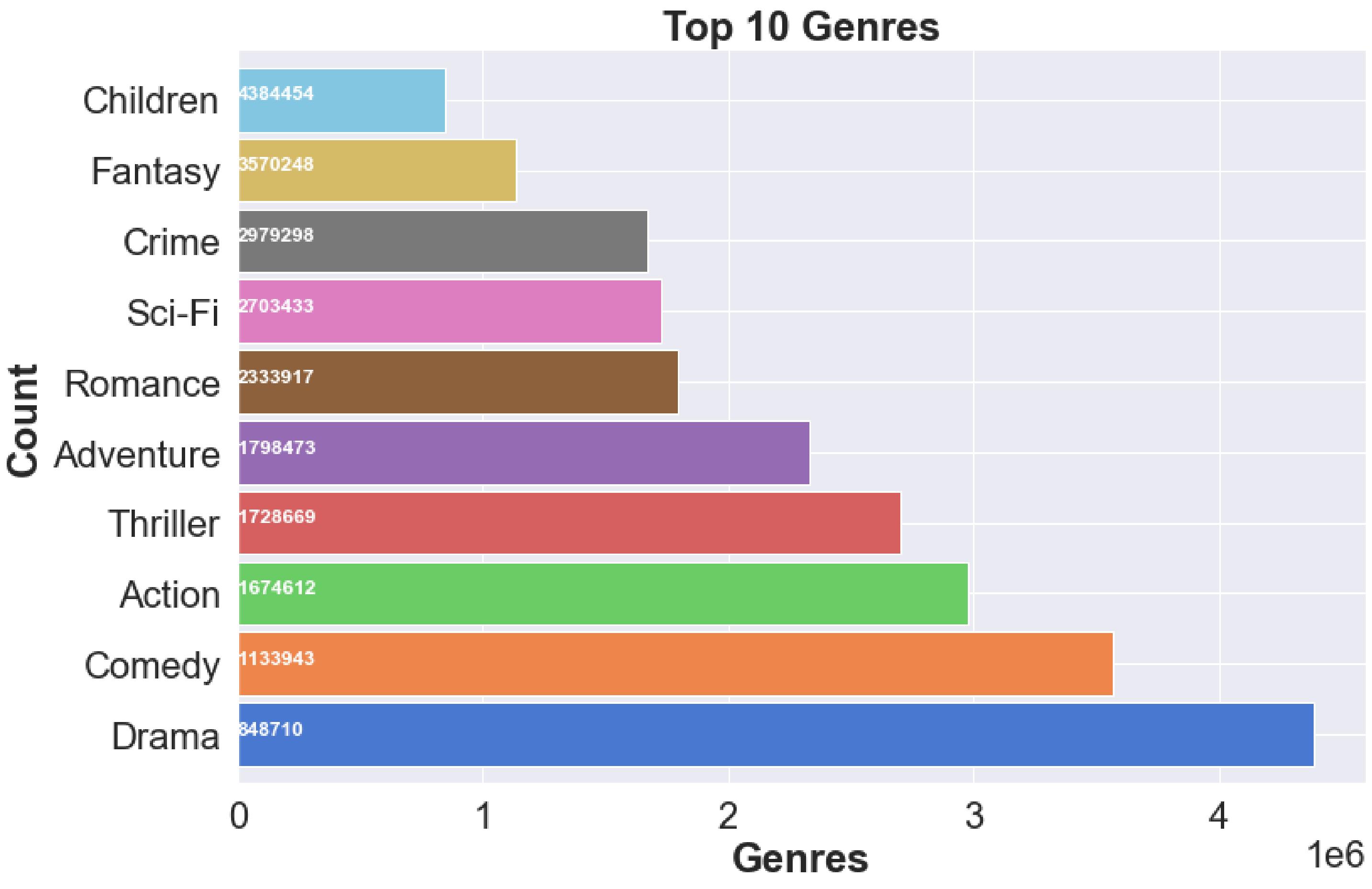
RATINGS PER MOVIE

Ratings per movie

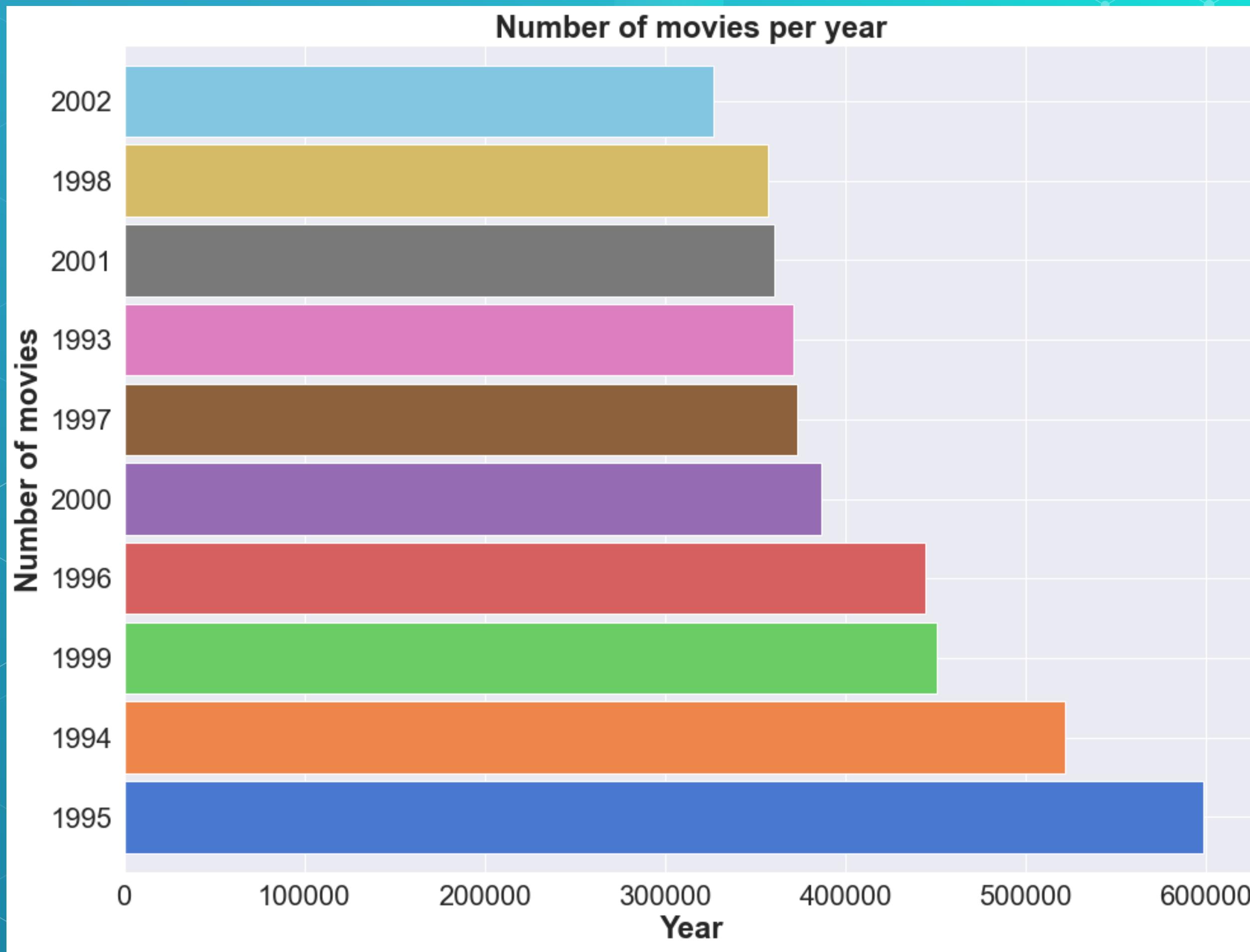


MOST POPULAR GENRE

Top 10 Genres

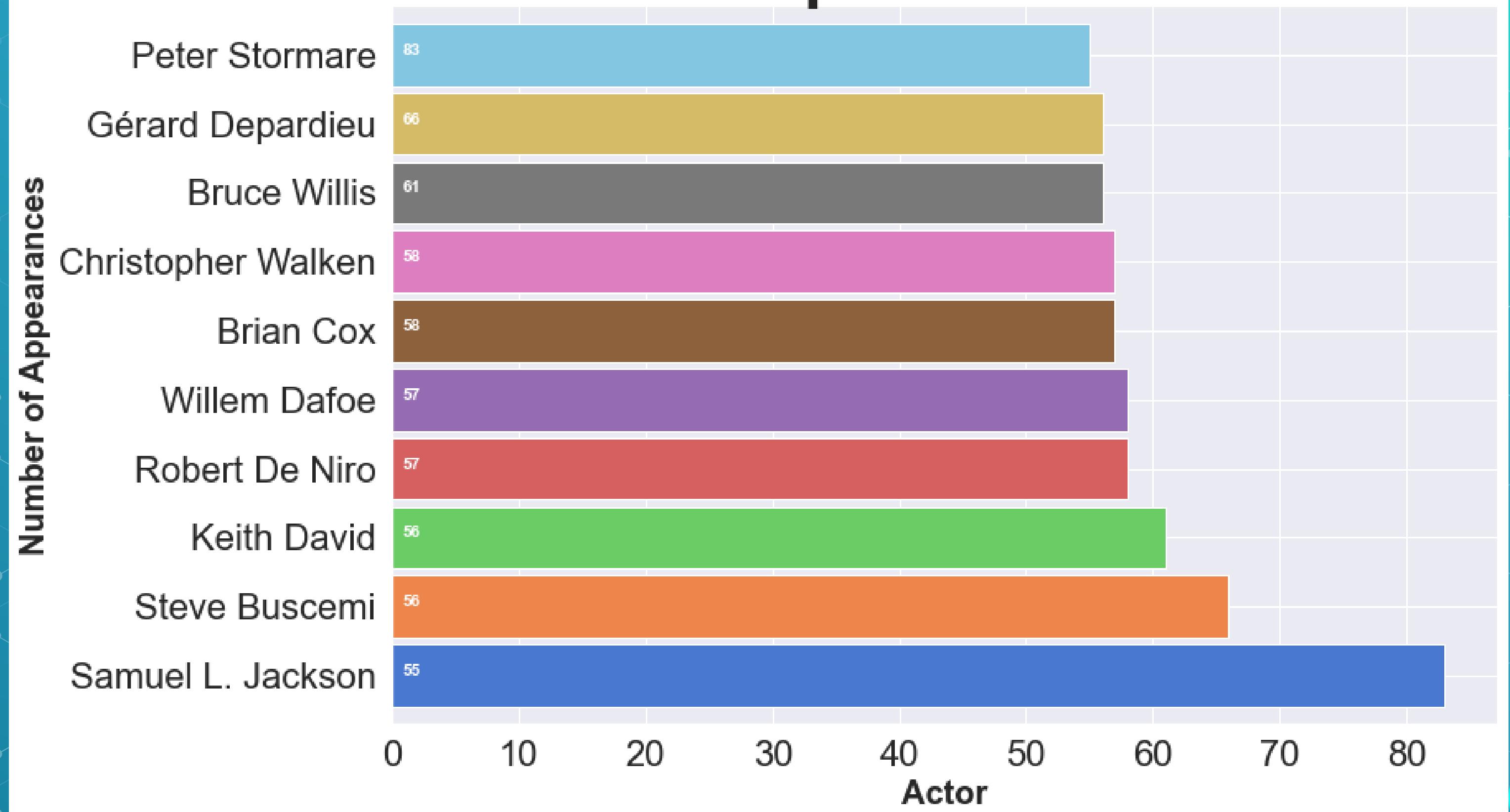


NUMBER OF MOVIES PER YEAR



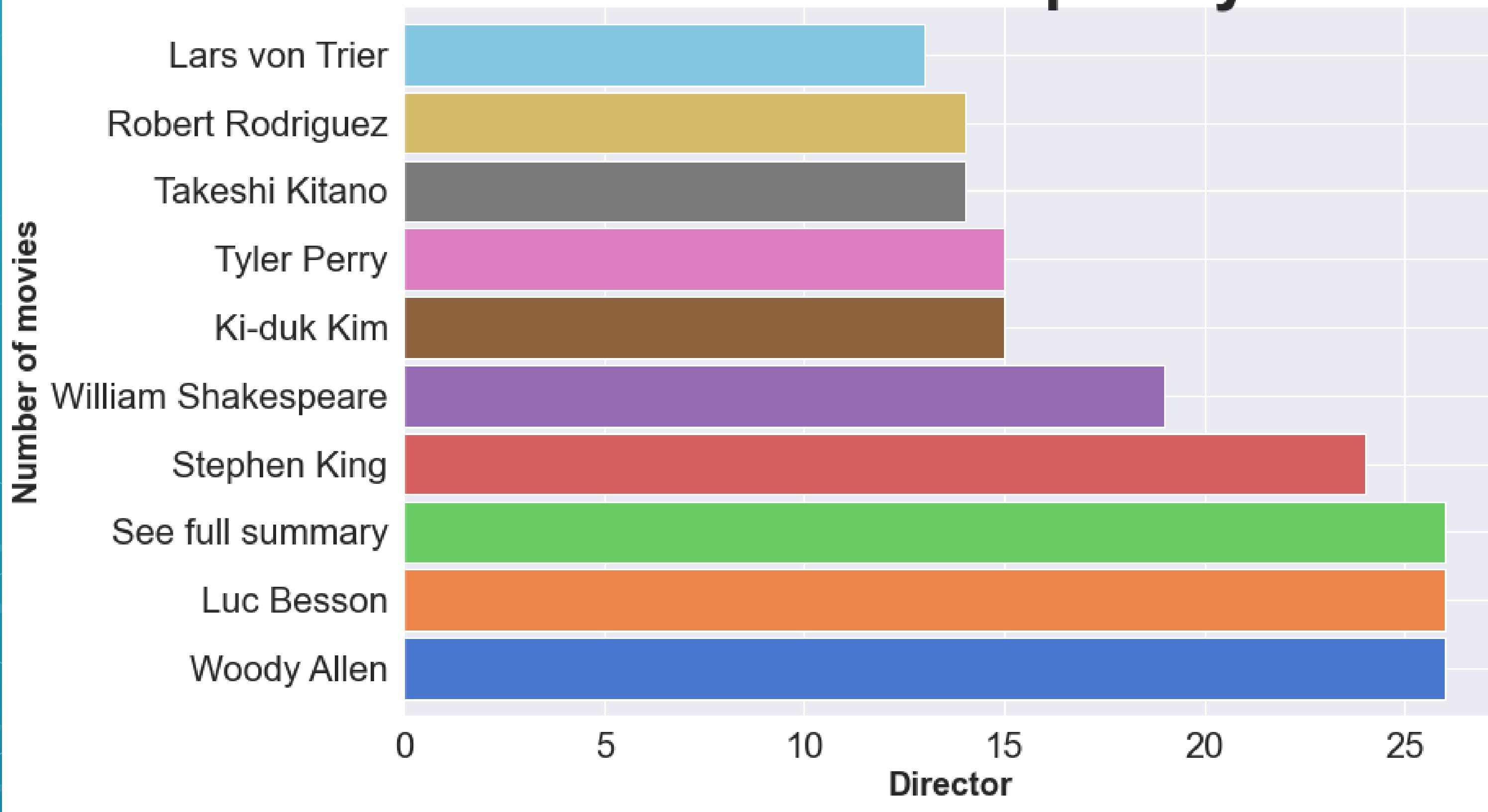
FREQUENT ACTORS

Top 10 Actors



DIRECTOR FREQUENCY

Director Frequency

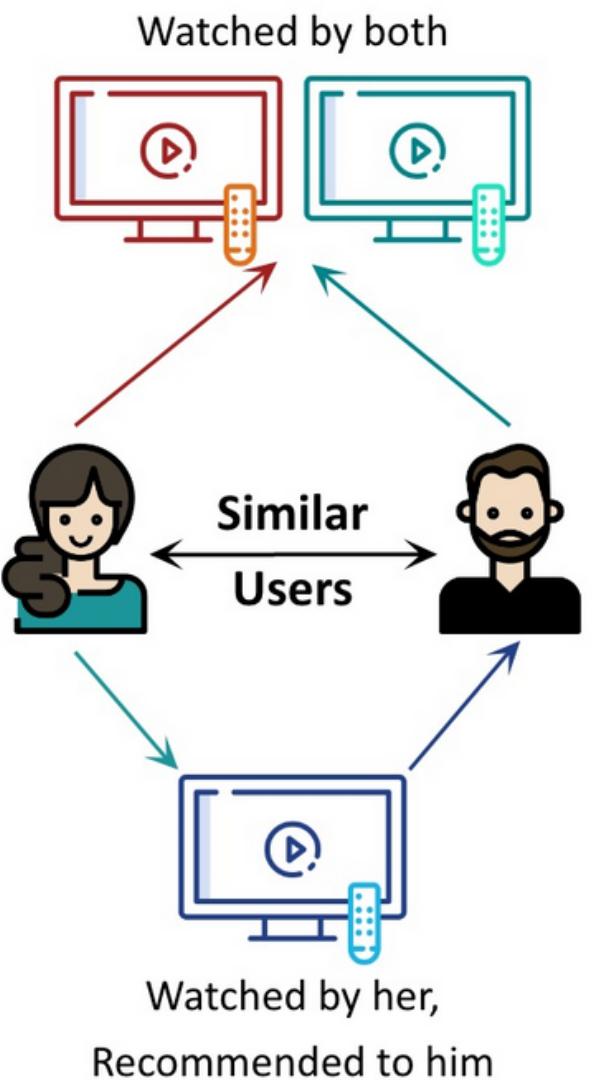


FEATURE ENGINEERING

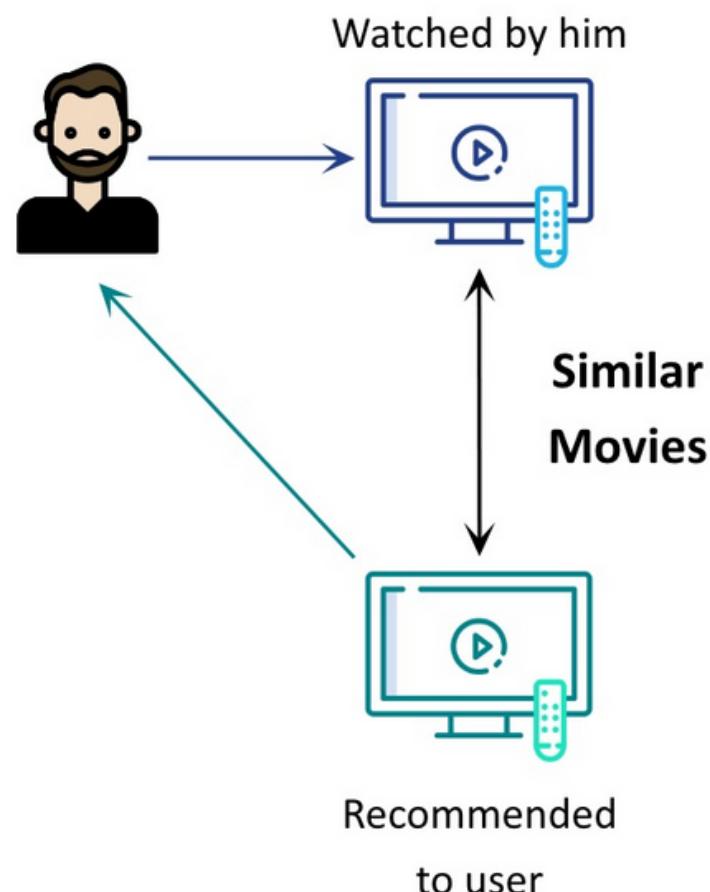
1. Missing value imputation
2. drop columns
3. Conversion

RECOMMENDER SYSTEMS

Collaborative Filtering

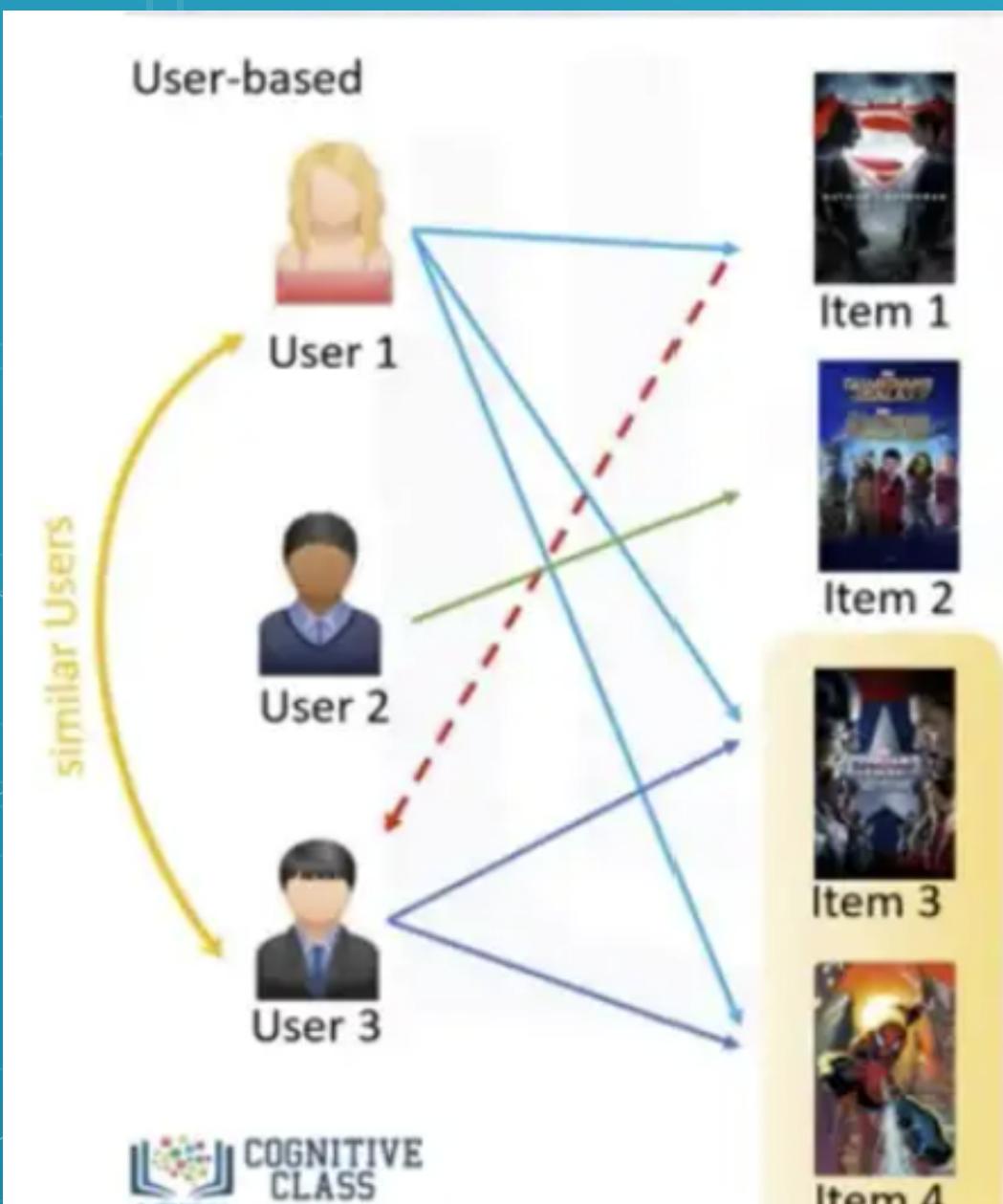


Content-Based Filtering

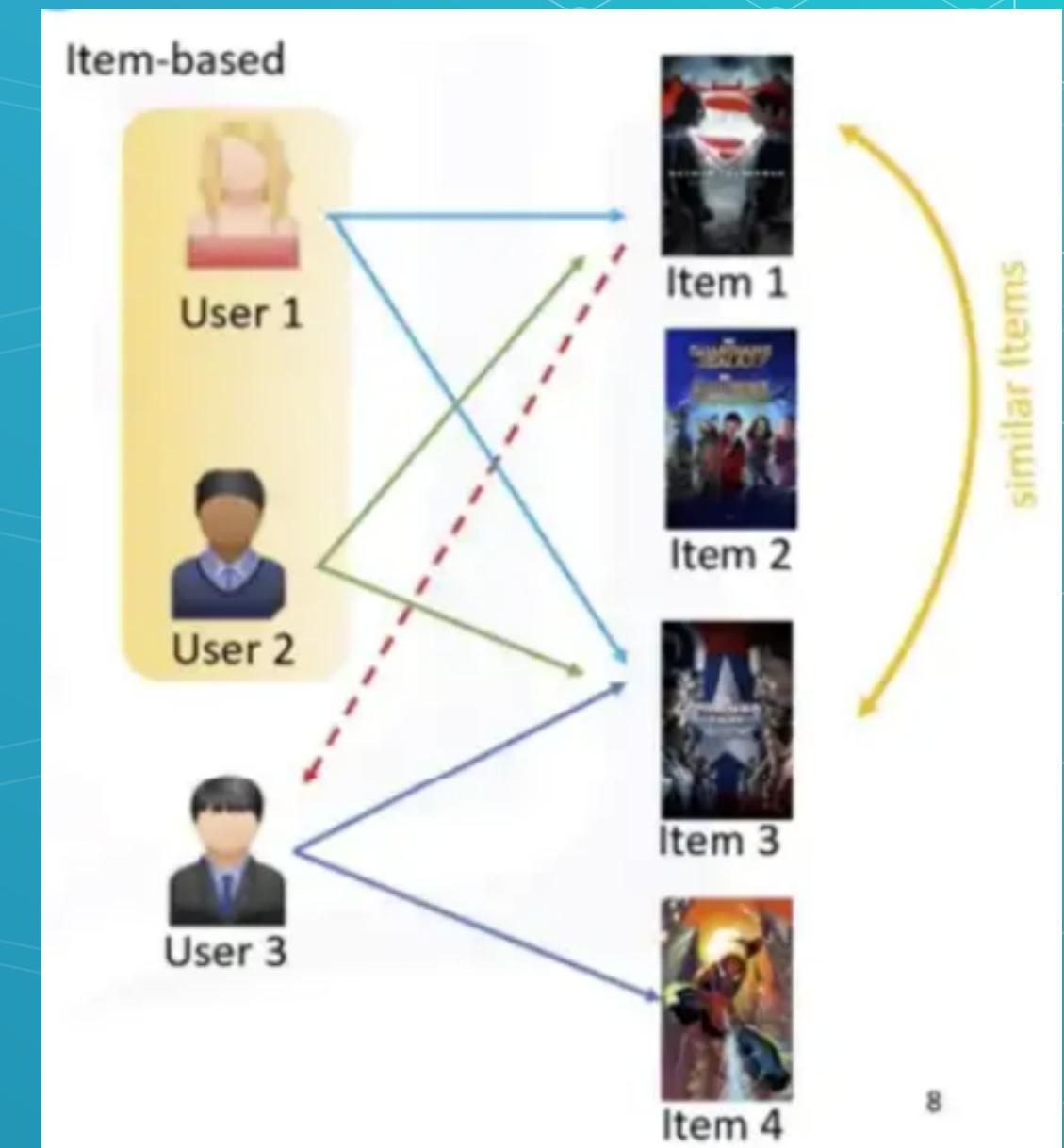


COLLABORATIVE FILTERING

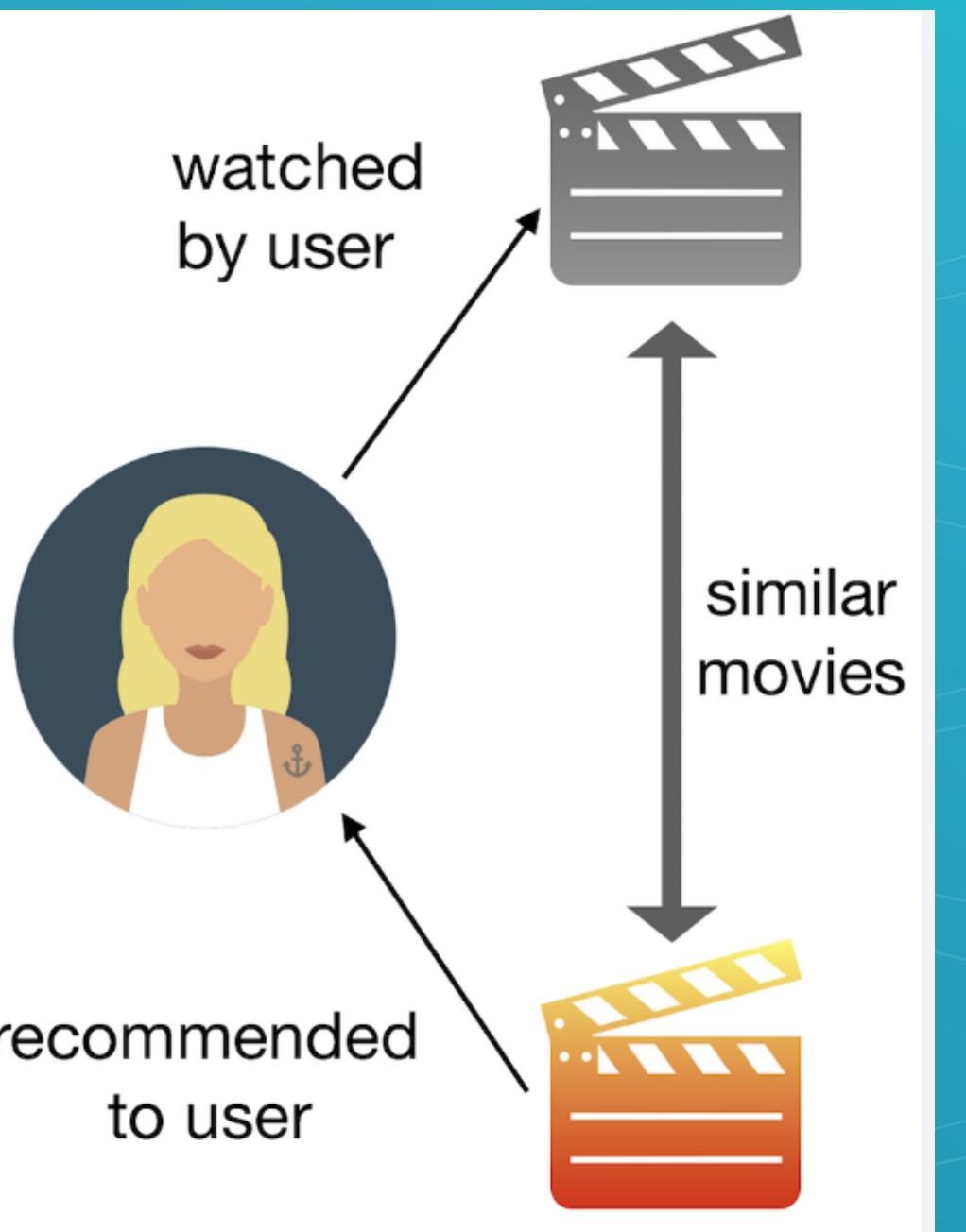
User-Based



Item-Based



CONTENT BASED



MODELS

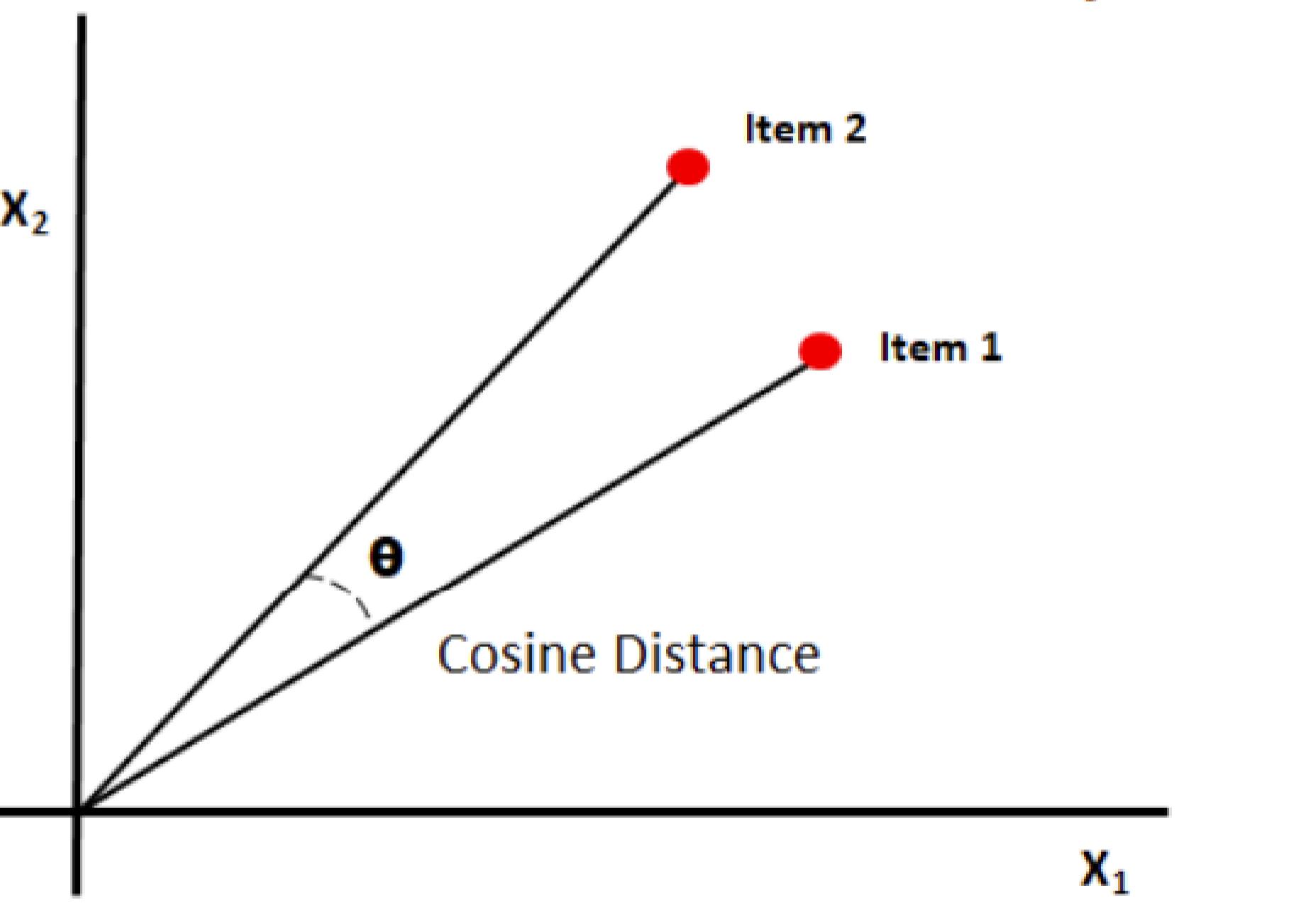
Collaborative Filtering

- Singular Vector Decomposition
- Singular Vector decomposition ++
- Co Clustering

MODELS



Cosine Distance/Similarity



MODEL EVALUATION

■ *RMSE*

1

0.75

0.5

0.25

0

SVD

SVDpp

Coclustering

APP DEMO



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AI**

FINDINGS AND LIMITATIONS



BUSINESS VALUE



1. Deliver relevant content to users
2. Engage Users
3. Increase Customer Satisfaction
4. Increase revenues for the organisation.

THANK YOU!

ANY QUESTIONS?