

Phase 4 Project

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Business Problem

Description: Online streaming platform that offers movies to its subscribers.

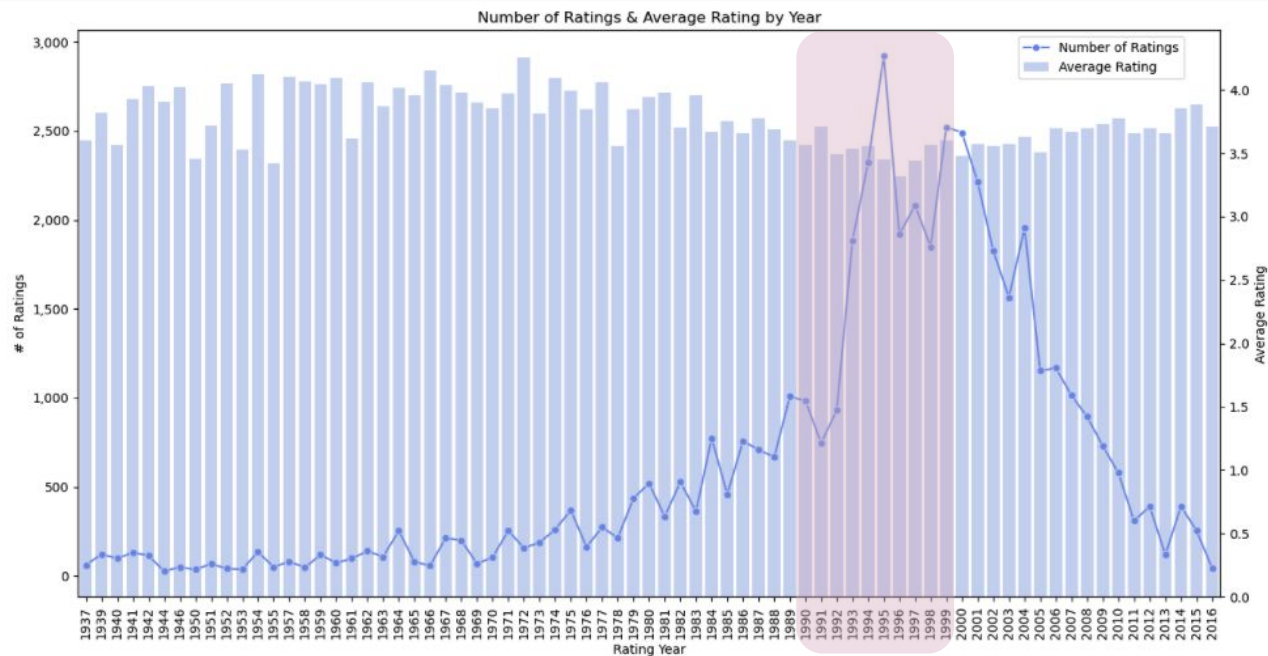
The team's primary objective this quarter is to enhance user engagement, increase user satisfaction, and ultimately drive more subscriptions.

Goal: Build a recommendation system that provides personalized movie recommendations to each user.

Data

41k ratings from
450 movies and
600 users with a rating
scale of **0-5**

Ratings Over Time



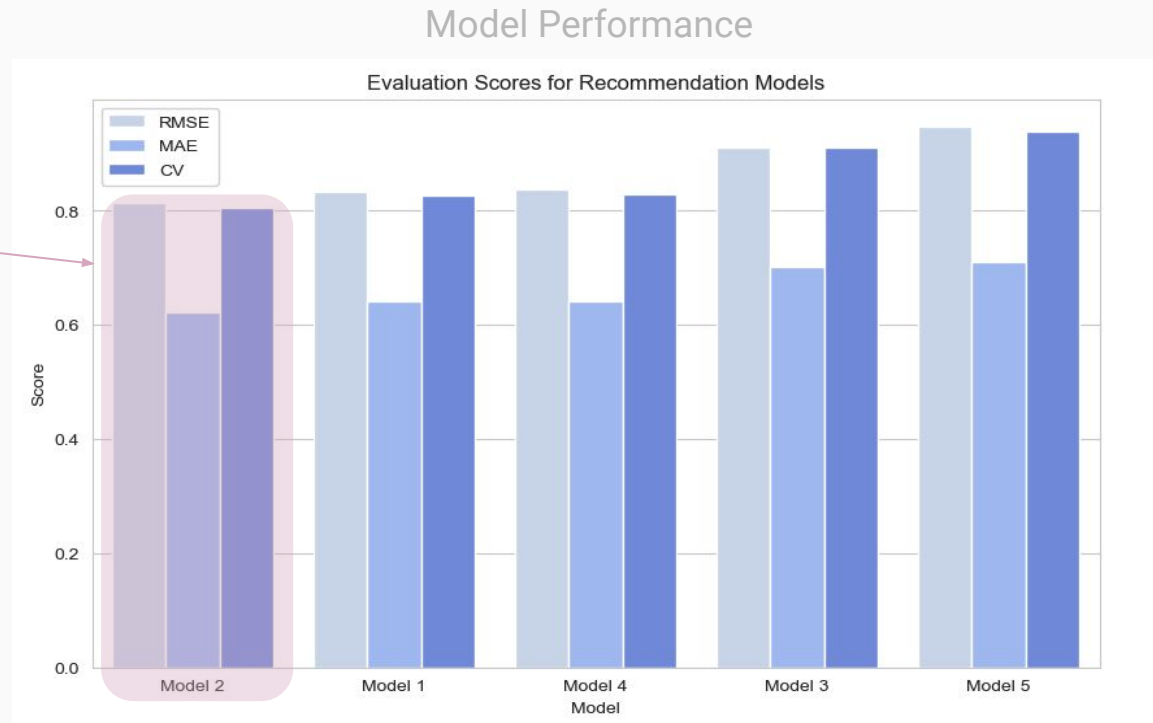
Final Models

Primary metric is **RMSE**

Tuned **SVD** Model

Predicted ratings are off
by approximately **0.81**
units from actual

Generally **good**
performance



Content Recommender

Considering **genre** as our content filter - cosine similarity

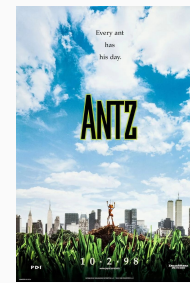
Decent/ not great; no real **awareness**

Opportunity to include **tags or movie descriptions** to enhance

Content Recommendations for Toy Story

Similar movies to movie 1 :

1 Toy Story (1995)
3114 Toy Story 2 (1999)
4016 Emperor's New Groove, The (2000)
4886 Monsters, Inc. (2001)
2294 Antz (1998)



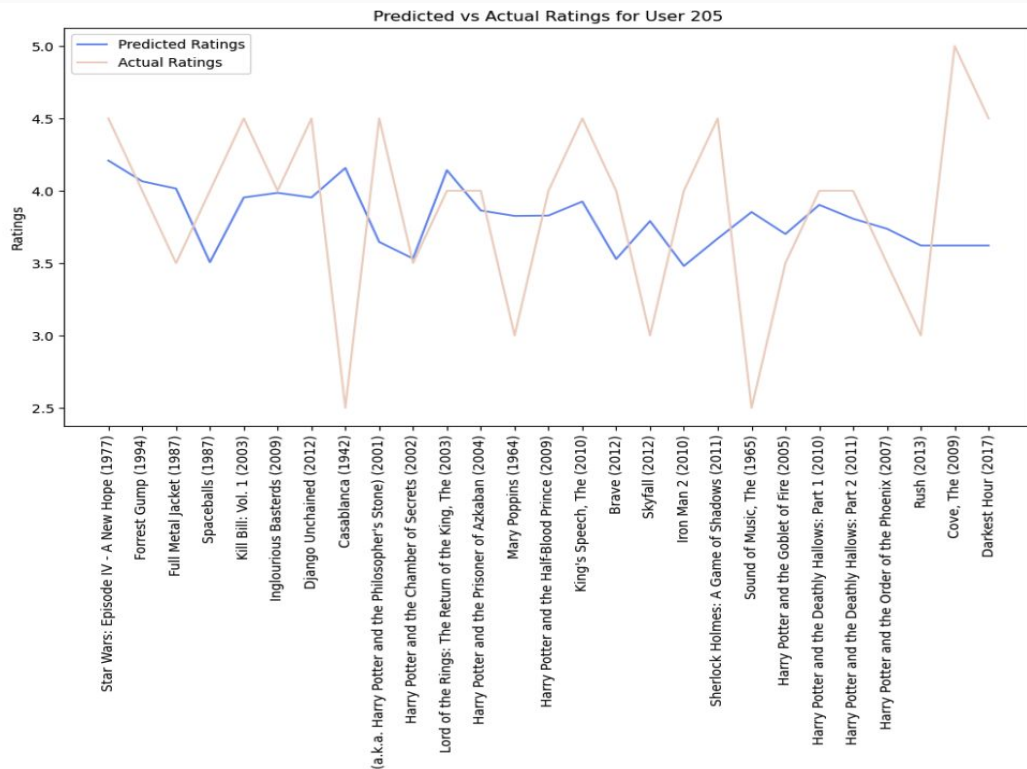
Collaborative Recommender

Rating **comparison** for sample user

Good predictions, when considering **RMSE of .81**

Look at **larger datasets**, and potentially online compute resources

Example User



Recommendations

A/B testing between users without the recommendations, and users with the recommendations to measure engagement.

Continue to evaluate content recommendation model to **improve hybrid approach** (tags/ descriptions)

Work with software dev/engineering to **implement** initial **rating capture** for new users

Consider **larger datasets** and **better compute** resources

Thank you!

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