



Movies on a Plane

Analysis by Jordan Scriven

Goals



Save Money – cut down on the available library of movies

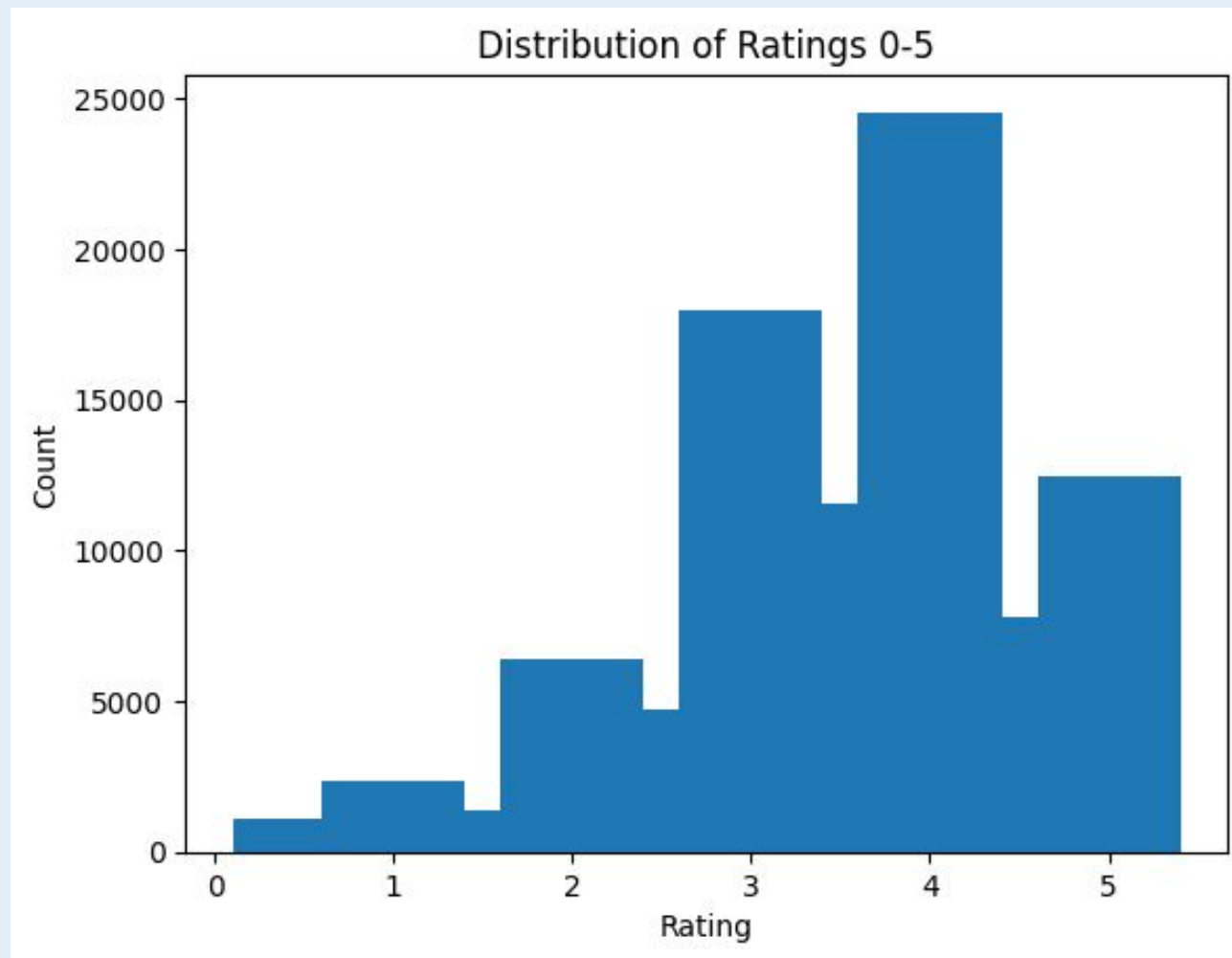


Recommend good fits from the reduced movie library to keep the perk for the passengers

Data Understanding

- Collected by MovieLens, a movie recommendation service, from March 1996 – September 2008
- Over 100,000 ratings made by 610 different users for nearly 10,000 movies
- Ratings on a 5-star scale





Data Preparation

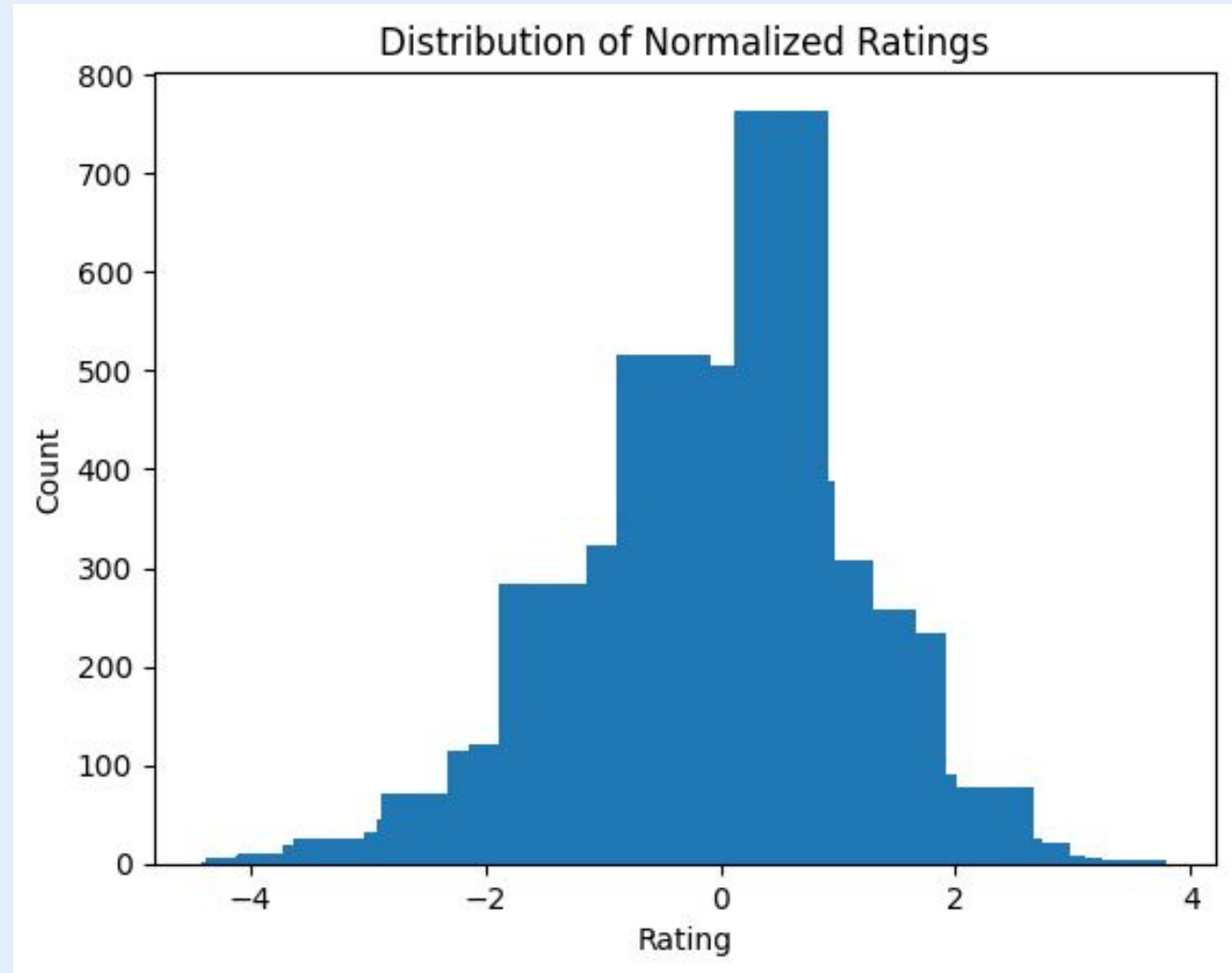


Remove any movies with
less than 5 ratings

Data Preparation



Normalize the ratings



Data Modeling

Collaborative
filtering

SVD Model

Split data to
70%/30%
trainset/testset

Model Evaluation

Predictions
within .8606



Example:
User 256

Top recommendations for user 256:

1. Silence of the Lambs, The (1991) (Estimated rating: 4.62)
2. Star Wars: Episode V - The Empire Strikes Back (1980) (Estimated rating: 4.61)
3. Desperado (1995) (Estimated rating: 3.98)
4. For Love or Money (1993) (Estimated rating: 3.85)
5. Independence Day (a.k.a. ID4) (1996) (Estimated rating: 3.81)

Conclusion, Limitations and Next Steps

Movie recommendation for passengers on our flights allows us to cut the cost of this service by only offering a subset of movies, while continuing to provide highly rated movies that fit with the passenger's preferences



Cold Start problem



Collect demographic data to model the passenger to a known user with rated movies
Or
Prompt new users to provide initial data

Thank you!

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