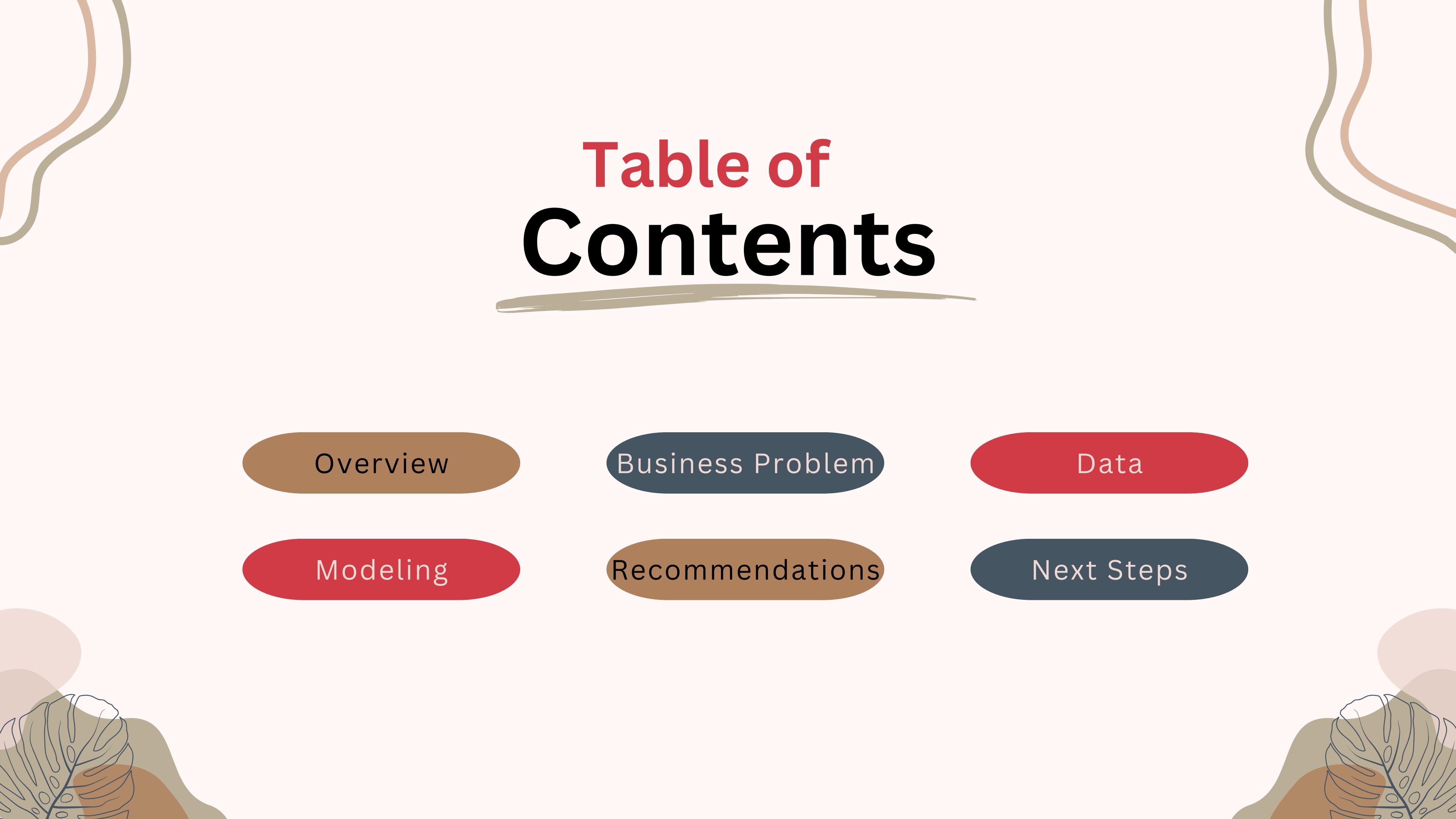


Anime Recommendation Systems



Clara Giurgiu

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Overview



Recommendation system for new members and current subscribers

Content-based

Collaborative Filtering

Business Problem



Growing Market

- New shows released constantly
- Decision Fatigue
- Competition



Our Role

- Help anime fans discover new shows that they will enjoy
- Curated list based on content/preferences



Data

MyAnimeList

Anime Dataset

- 12K shows
- Title
- Genre

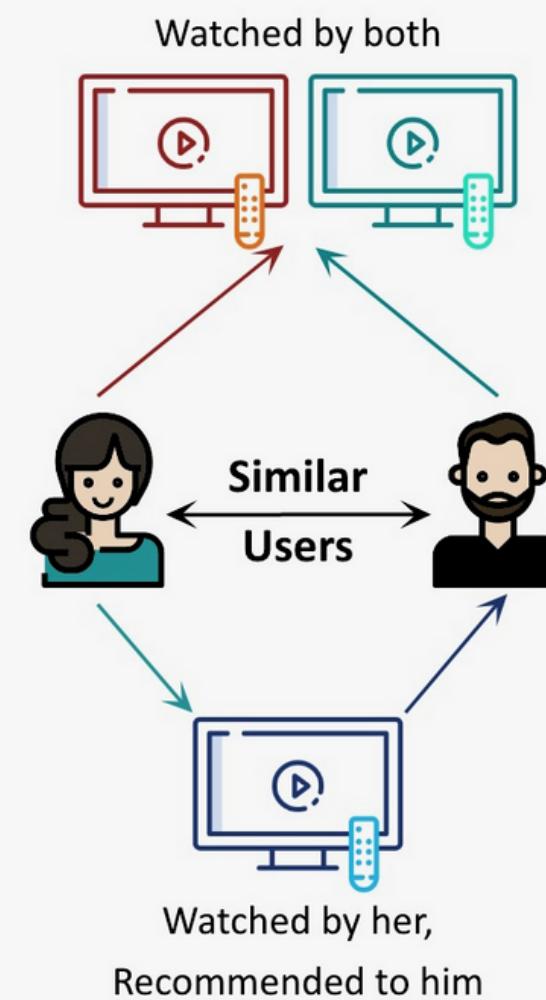
Kaggle

Ratings Dataset

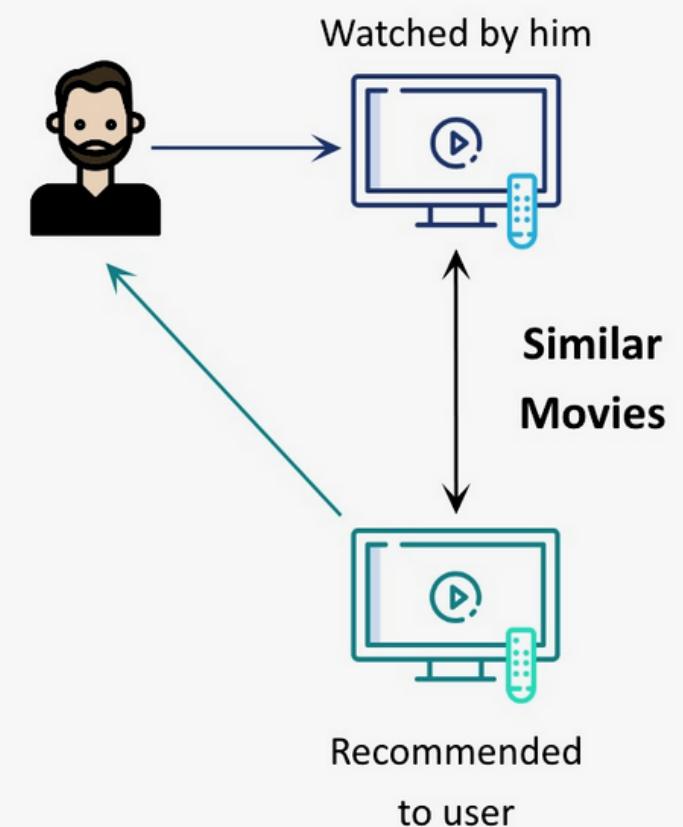
- 7M
- User ID
- Rating 1-10

Modeling

Collaborative Filtering



Content-Based Filtering



Modeling



Content Based



Baseline



Singular Value Decomposition



Non-Negative Matrix Factorization

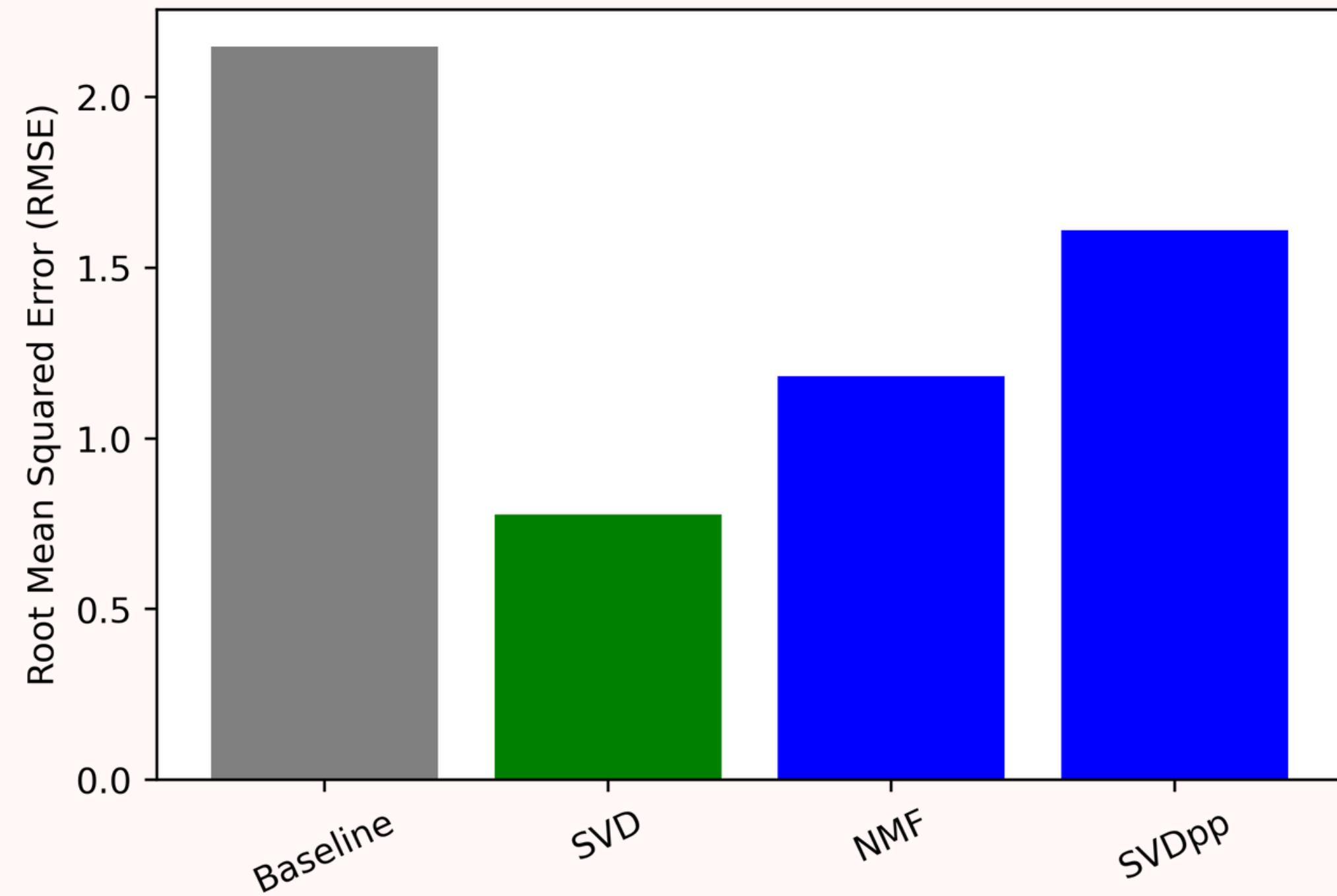


Singular Value Decomposition ++



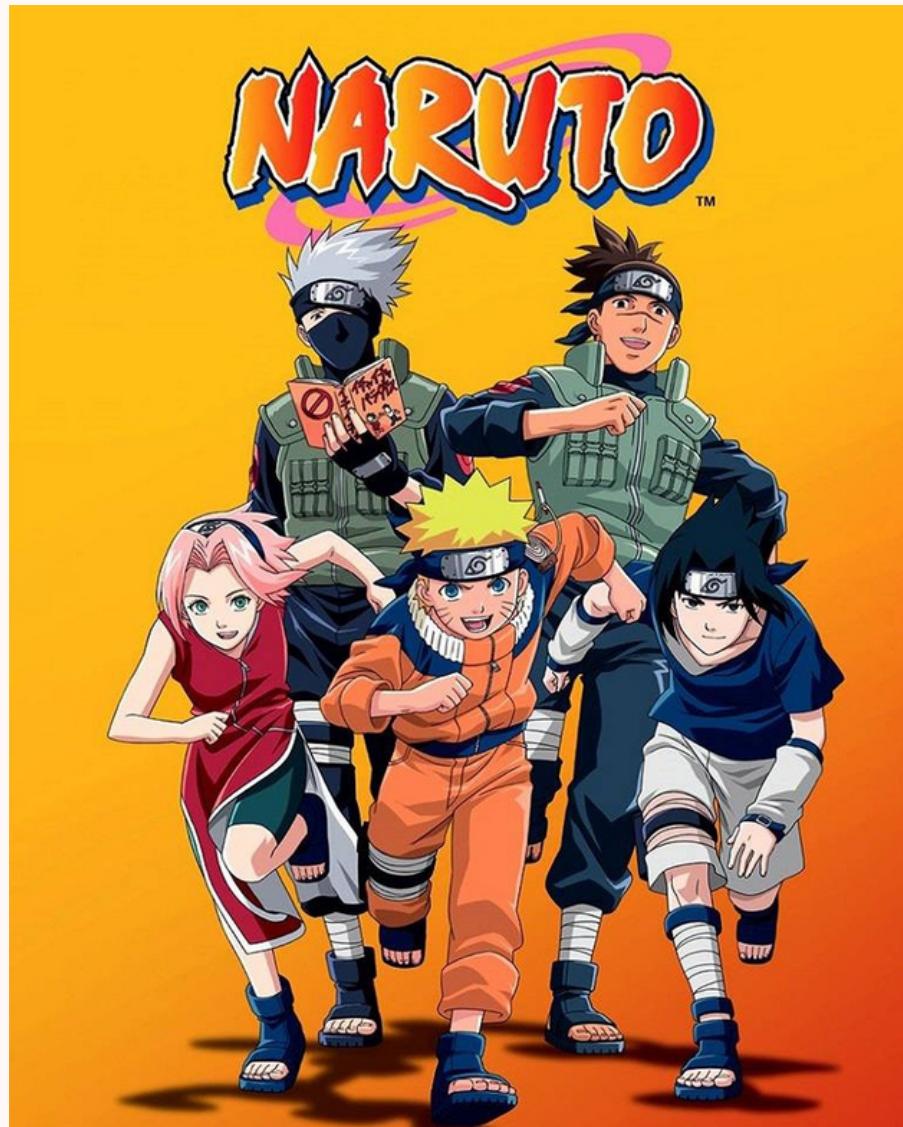
Comparison

Surprise Models



Recommendations

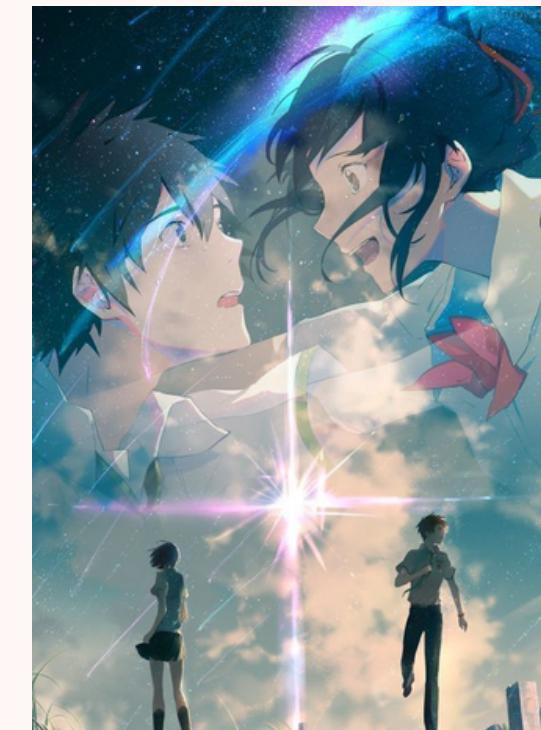
Content Based



Recommendations

Collaborative Filtering

User 73512



Conclusion

Models

- Content-Based
 - Accurate recommendations
 - Difficult to measure
- Collaborative Filtering
 - RMSE = 0.77

Limitations

- Data sparsity
- Cold Start
- Bias

Next Steps



- More Recent Data
- New Algorithms
- Hybrid System

Thank
You



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