



How to find the answer to...

WHAT MOVIE SHOULD WE WATCH?

Building a movie recommendation system

Presented to you by:

SVD Data Consulting



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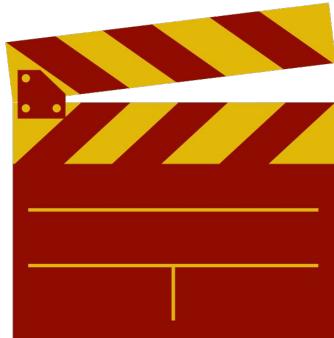
Business Challenge

How to provide the top 5 movie recommendations for a user

Summary

- Data Source
- Final Model
- Demonstration
- Future Steps





Data Source:

MovieLens.org

- >100K user ratings
- ~10K unique movies
- >600 users

Final Model



Processing
User Ratings



Model
Matrix Factorization



End Result
Top 5 Recs

Demonstration

RANDOM USER: #358

- 41 ratings
- Avg. Rating: 3.25



User 358's Top 10

	Title	Genre	Rating
1.	Tristan & Isolde (2006)	Drama / Romance	5.0
2.	Titanic (1997)	Drama / Romance	5.0
3.	Atonement (2007)	Drama / Romance / War	5.0
4.	A Walk to Remember (2002)	Drama / Romance	5.0
5.	The Time Traveler's Wife (2009)	Drama / Romance / Sci-Fi	4.5
6.	The Illusionist (2006)	Drama / Fantasy / Mystery / Romance	4.5
7.	(500) Days of Summer (2009)	Drama / Romance / Comedy	4.5
8.	The Notebook (2004)	Drama / Romance	4.5
9.	Sunshine of the Spotless Mind (2004)	Drama / Romance / Sci-Fi	4.0
10.	Sunshine (2007)	Drama / Adventure / Sci-Fi / Thriller	4.0



User 358's

Predicted Top 5

	Title	Genre	Predicted Rating
1.	Guess Who's Coming to Dinner (1967)	Drama	4.69
2.	Seve (2014)	Drama / Documentary	4.66
3.	Mr. Skeffington (1944)	Drama / Romance	4.65
4.	Cherish (2002)	Drama / Comedy / Thriller	4.59
5.	Enter the Void (2009)	Drama	4.57



LIMITATIONS

- Data Set
- Rater Bias
- New Users





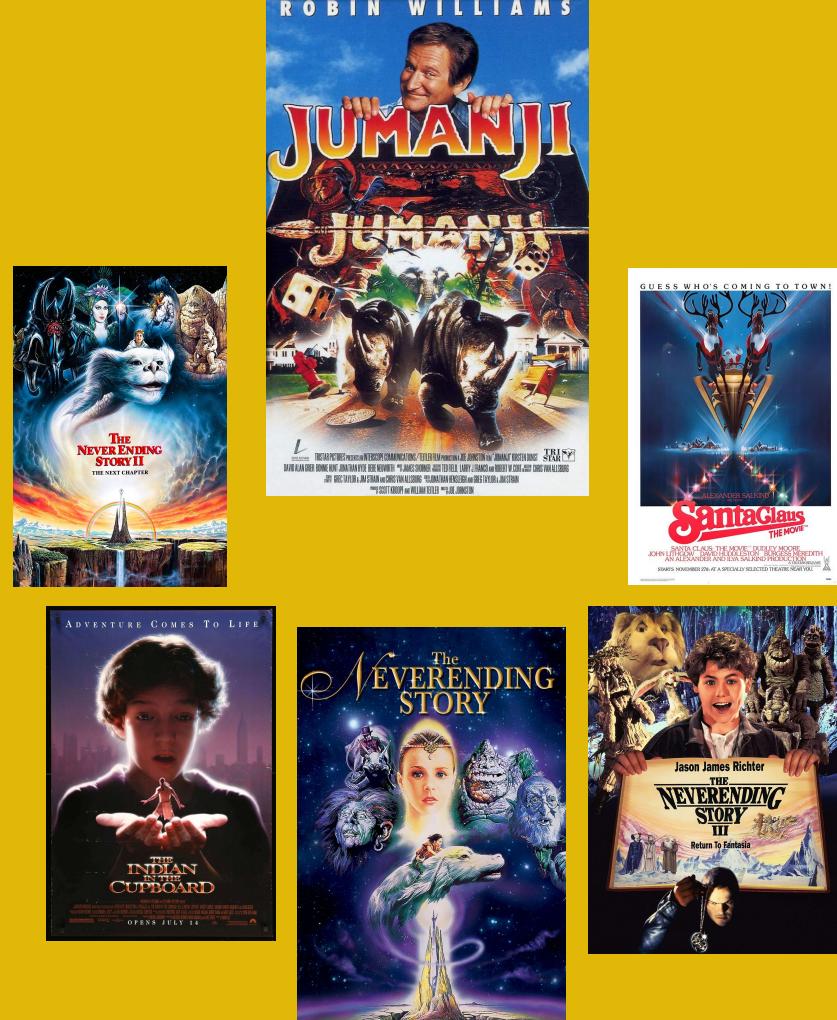
The “Cold Start”

- Content-Based Filter: Genres
- New User: Favorite Movie

Demonstration

	Given Title	Genre
1.	Jumanji (1995)	Adventure, Children, Fantasy

	Predicted Titles	Genre
1.	The NeverEnding Story II: The Next Chapter (1990)	Adventure, Children, Fantasy
2.	The Indian in the Cupboard (1995)	Adventure, Children, Fantasy
3.	The NeverEnding Story (1984)	Adventure, Children, Fantasy
4.	The NeverEnding Story III (1994)	Adventure, Children, Fantasy
5.	Santa Claus: The Movie (1985)	Adventure, Children, Fantasy



NEXT STEPS

- Connect platforms
- More user data



THANK YOU!

TO CONNECT WITH US...



Email

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GitHub

- [SamuelRobins](https://github.com/SamuelRobins)
- [mccafj](https://github.com/mccafj)