



film_finder

A TV & MOVIE RECOMMANDATION SYSTEM

Finding films that you'll enjoy.



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Data Scientist



AGENDA

1. Project Goals
2. Data Overview
3. Collaborative Based Filtering
4. Content Based Filtering
5. Conclusions
5. Next Steps





Main goal:
How to recommended
relevant content?

Extract

Approach

Evaluate

DATA OVERVIEW



VIDEO META DATA

- Titles
- Starring
- Descriptions
- Movie_ID's



USER REVIEW DATA

- Users
- User Ratings
- User Reviews
- Movie_ID's

DATA LIMITATIONS

Luxury Beauty	reviews (574,628 reviews)	metadata (12,308 products)
Magazine Subscriptions	reviews (89,689 reviews)	metadata (3,493 products)
Movies and TV	reviews (8,765,568 reviews)	metadata (203,970 products)
Musical Instruments	reviews (1,512,530 reviews)	metadata (120,400 products)
Office Products	reviews (5,581,313 reviews)	metadata (315,644 products)
Patio, Lawn and Garden	reviews (5,236,058 reviews)	metadata (279,697 products)
Pet Supplies	reviews (6,512,193 reviews)	metadata (206,141 products)

Amazon Review
Data: 1996 - 2018

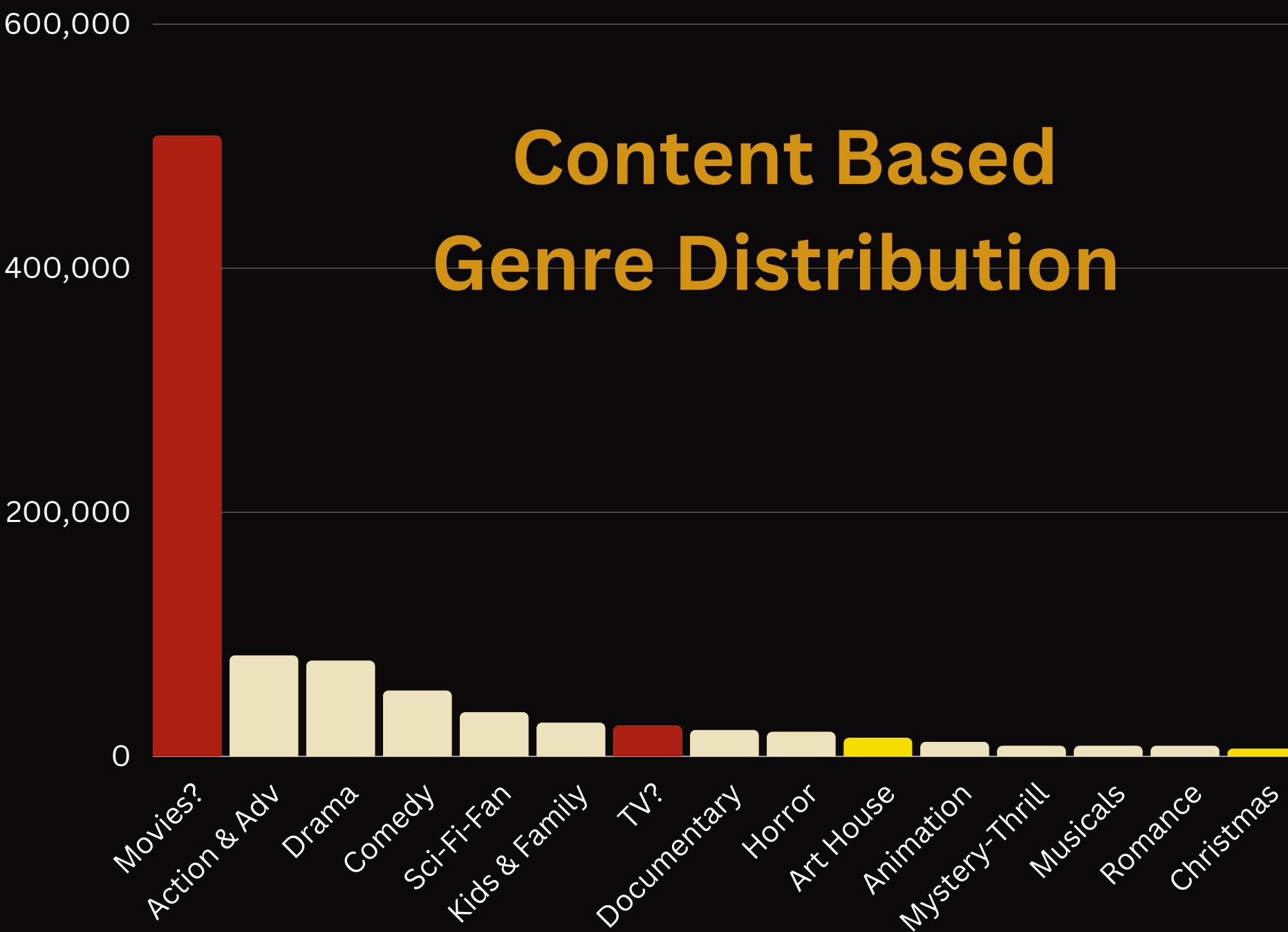
DATA PREPARATION

Collab Data:
251,705 USERS

85,605 VIDEOS

OVER 2 MIL REVIEWS

**Content Based
Genre Distribution**



COLLABORATIVE FILTERING

**RMSE Scores
(1-5 scale)**

**Dummy Model
1.39**

**Final SVD++ Model
0.91**

0

0.5

1

1.5

Performs Poorly w/ High Uniform Ratings

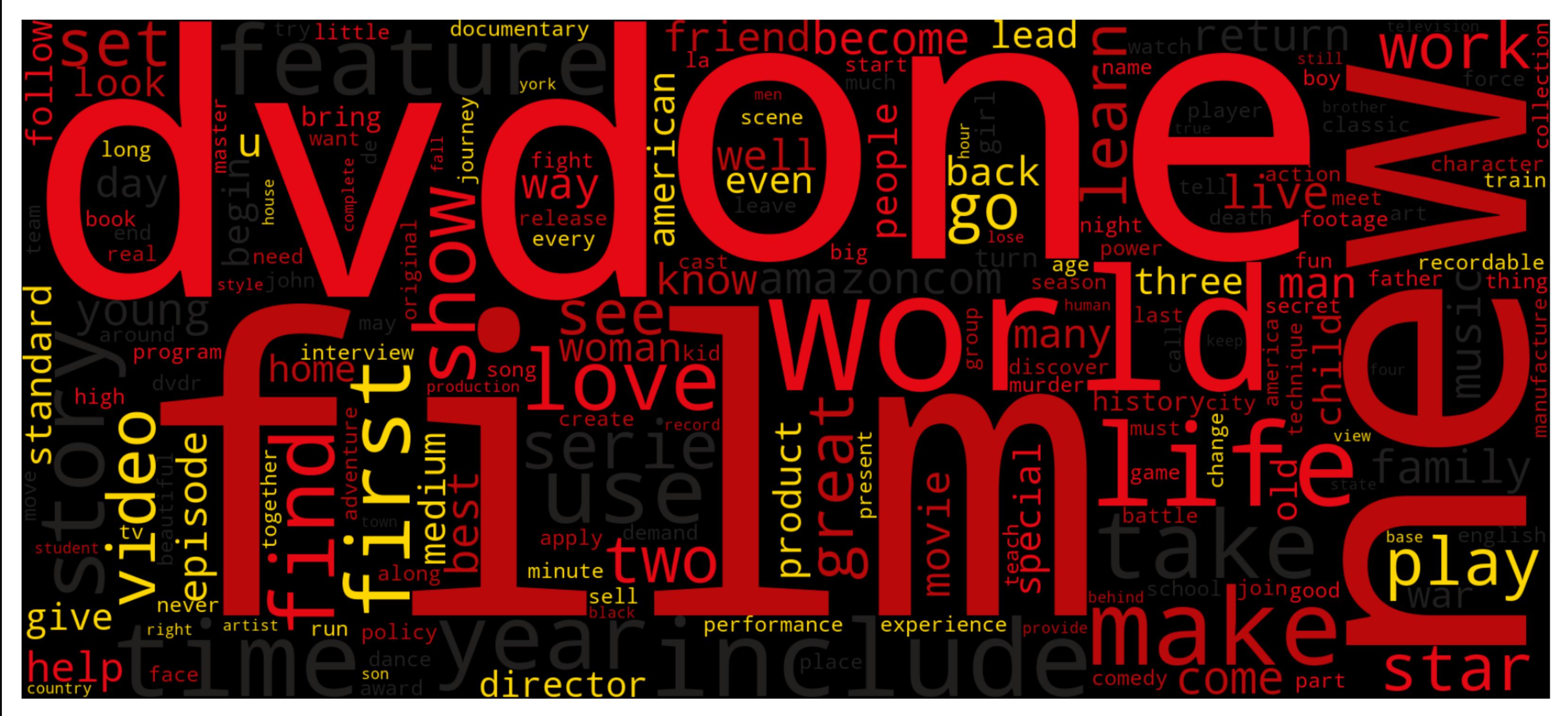
The user_id for this recommendations is A2Z9MK8HNYT17Y and they have reviewed 5 different movies and/or TV shows

	predicted_rating	genre	description	title	starring
0	5.0	mystery suspense	"Now in original U.K. broadcast orderSuperbly ...	Midsomer Murders Series 8	John Nettles
1	5.0	unknown	Wazzup? Superstar Martin Lawrence (Open Season...	Martin: Season 2	Martin Lawrence
2	5.0	art house international italian	Italian cinema dream team Sophia Loren (Marria...	A Special Day	Sophia Loren
3	5.0	documentary	The true story behind the cataclysmic World Wa...	Hitlers Lost Sub VHS	Various Artists
4	5.0	comedy	<![CDATA[Pushing Daisies: Season 1 & Season 2...	Pushing Daisies: The Complete First and Second...	Lee Pace
5	5.0	documentary	A 6 volume set of VHS tapes, from PBS	Eyes on the Prize America's Civil Rights Years...	Henry Hampton

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1 print_user_check_df(df_user_check, 'A2Z9MK8HNYT17Y')
```

	rating	genre	description	title	starring
0	5	comedy	Get ready to laugh with Mork & Mindy, the insa...	Mork & Mindy: The Complete Series	Robin Williams
1	5	comedy	When widower Mike Brady (Robert Reed) marries ...	Brady Bunch: The Complete Series	Florence Henderson
2	5	unknown	Will Smith stars as a teenager from inner city... The Fresh Prince of Bel-Air: The Complete Seas...	The Fresh Prince of Bel-Air: The Complete Seas...	Will Smith
3	5	comedy	<![CDATA[Fresh Prince of Bel Air, The: The Co...	The Fresh Prince of Bel-Air: Season 3	Will Smith
4	5	comedy	<![CDATA[Fresh Prince of Bel-Air, The: The Co...	The Fresh Prince of Bel-Air: Season 4	William Smith

NLP OF GENERIC FILM DESCRIPTORS



CONTENT BASED FILTERING

Recommendations Purely Genre Based

Input movie information:

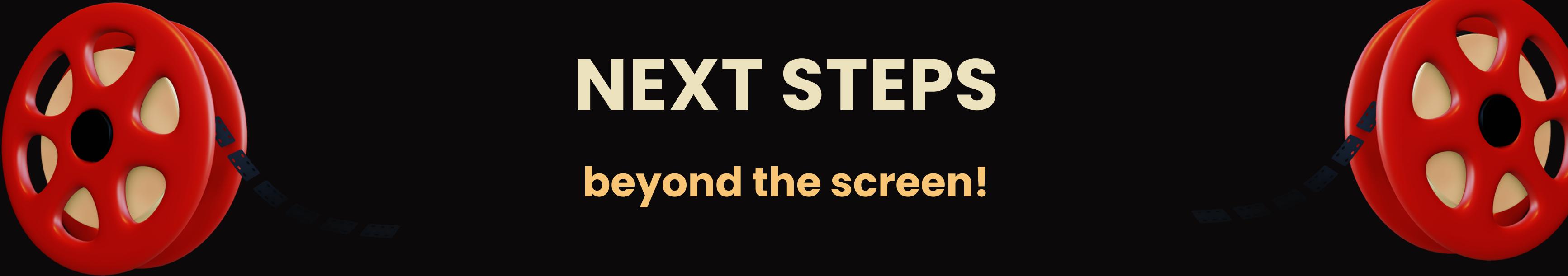
	title	genre	starring
The Fresh Prince of Bel-Air: Season 3	Comedy	Will Smith	

Recommended movies:

	title	genre	starring	movie_id
31176	The Fresh Prince of Bel-Air: Season 4	Comedy	William Smith	B000FL7C8W
47213	Agitbrigada "Bey Vraga"	Comedy	Vitalij Mel'nikov	B00169MIOK
47571	Ukrowenie stroptivogo /Il Bisbetico Domato	Comedy	Giuseppe Moccia	B00171EQVK
89054	Devushka bez adresa	Comedy	Nikolaj Rybnikov, Yurij Belov, Sergej Filippov...	B00NCEL8JS
89975	Lyudi i manekeny (Russian Language Only)	Comedy	Arkadiy Raykin	B00PHU0QTI

CONCLUSIONS





NEXT STEPS

beyond the screen!

Compare
Reviews vs
Descriptions

Genre Filtering
w/NLP
Classification

Combine
Systems

Launch App

Thanks for your time. Let's Talk!

Github

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