

OPTIMIZING RECOMMENDATIONS

StreamYou

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Agenda

-  **Business Problem**
-  **The Data**
-  **Method**
-  **Results & Demonstration**
-  **Limitations & Next Steps**



Business Problem

The more time users spend sifting through choices, the higher the likelihood of encountering **decision fatigue, frustration**, and, ultimately, **moving away from using the platform.**

Reduced Satisfaction

Lower Conversion Rates

Lack of Genre Specific Recommendations

The Data



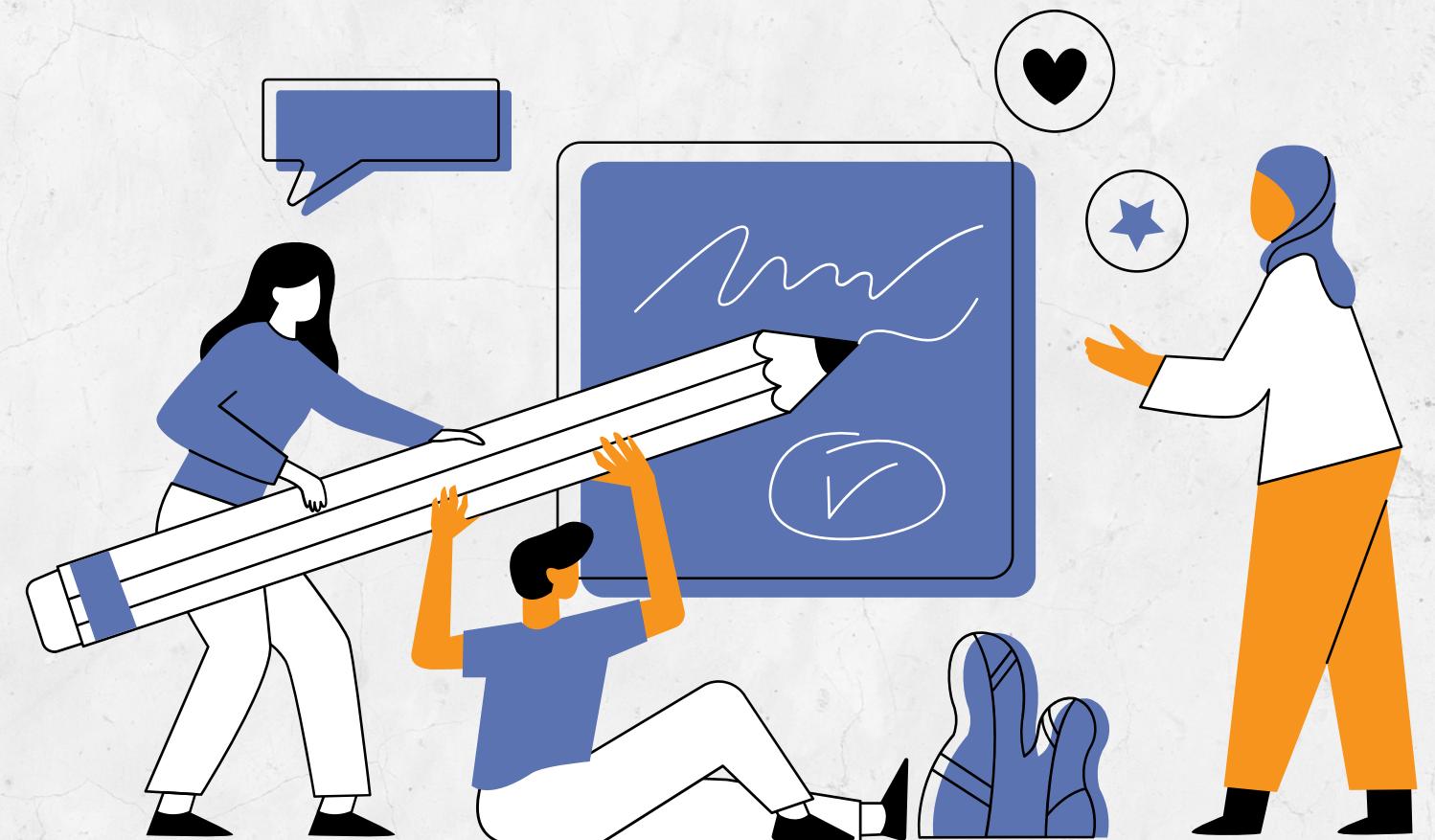
Over 100k User Ratings



Almost 10k Movies Reviewed



Every User has submitted at least 20 reviews



Distribution of Movie Ratings



Method

An **iterative approach** to modeling was leveraged to create **multiple models** and select the **best** based on rating prediction **accuracy**.



01

Baseline Model

Start with a Simple Model.

02

Parameter Search

Find best parameters for tuning of the model.

03

Evaluate & Compare

Compare models and select final model.

Results & Demonstration

- **Predict user ratings** within .8 points of their actual rating
- User input for the **number of recommendations** desired
- **Preferred genre** inputted by the user

```
User Id: 414
How many recommendations would you like? 5
Available Genres:
1. Adventure
2. Animation
3. Children
4. Comedy
5. Fantasy
6. Romance
7. Drama
8. Action
9. Crime
10. Thriller
11. Horror
12. Mystery
13. Sci-fi
14. War
15. Musical
16. Documentary
17. Imax
18. Western
19. Film-noir

Enter the number corresponding to the movie genre you want to watch: 
```



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Reduced Satisfaction



Lower Conversion Rates



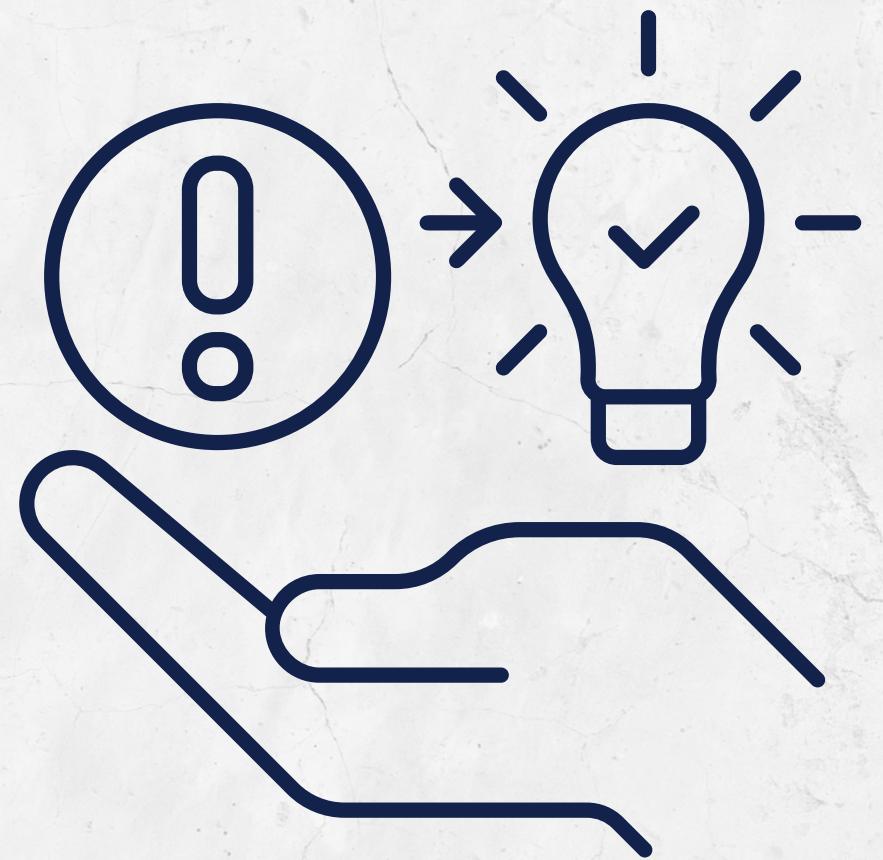
Lack of Genre Specific Recommendations



Limitations & Next Steps

Understanding and generating predictions for new users is still a challenge.

There is a need to explore content-based modeling to address this issue.





THANK YOU

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