



# Steam Connect

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# WHAT IS STEAM?

- Digital gaming platform owned by Valve
- Over 125 million active users as of 2015
- Currently no friend recommendation implemented on Steam





# DATA

- Around **250,000 users** and over **12,500 games** scraped
  - Filtered out games which saw an average playtime of < 30 minutes
  - Left with **8484 games** after dimensionality reduction





# BASE RATING MODEL

User	Game	Time Played (mins)	Rating
Jimmy	CS: GO	19790	0.968
Jimmy	Dota 2	401	0.02
Jimmy	Creativerse	140	0.0068
Jimmy	Requiem	50	0.0024
Jimmy	Mitos.is: The Game	35	0.0017
Jimmy	Airscape: The Fall of Gravity	20	0.0009
Jimmy	MicroVolts Surge	1	0.00005

- No explicit ratings on Steam
- Used the total time played as a proxy for the rating
- $r_{ui} = \frac{t_{ui}}{\sum_i t_{ui}}$  ,  $r_{ui} \in (0, 1]$



# RANDOM RATING MODEL

- Another model was created to compare the performance with based model
- Ratings are randomly generated per user and per game, and will sum to 1 across all games

User	Game	Rating
Jimmy	CS: GO	0.32
Jimmy	Dota 2	0.24
Jimmy	Creativerse	0.15
Jimmy	Requiem	0.11
Jimmy	Mitos.is: The Game	0.08
Jimmy	Airscape: The Fall of Gravity	0.07
Jimmy	MicroVolts Surge	0.03



# EVALUATION

- Randomly select 3000 users, get their top 100 recommended users
- See if there is a match between those top 100 users and their actual friends
- Shows that base model outperforms random model

Model	Score (max 3000)
Base Model	59
Random Model	41



# FUTURE WORK

- Recommendations for new users
- Recommend a multiplayer game for matched users
- Build a web app

# THANK YOU!



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[/lawrencechim/steam-recommender](https://github.com/lawrencechim/steam-recommender)



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