



Recommender

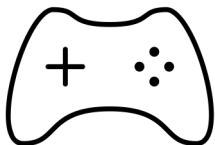
Play the Game You Like

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MSiA 423 Final Project

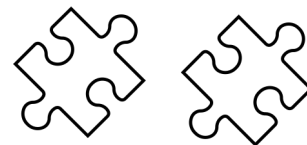
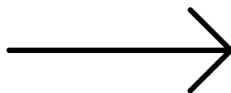
Project Motivation & Mission

Steam Platform

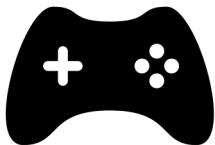
- Steam is a digital video game library for users to purchase, download and play games on PC/laptops.
- It supports over 20k games' purchase, installing, and playing on the PC platform



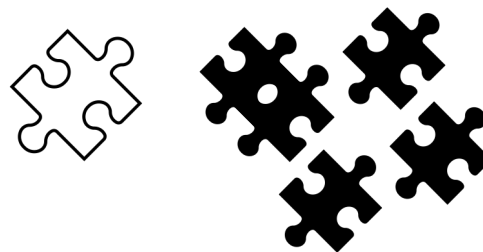
Loyalists



Grind on Particular Games



Non-Loyalists



Always Looking for Novelty

Live Demo



Data Usage

Raw Dataset

- The raw dataset is obtained from Kaggle.
- Contains 27000+ games records with their essential profile attributes.

appid	name	release_date	english	developer	steamspy_tags	achievements	positive_ratings	negative_ratings
10	Counter-Strike	2000-11-01	1	Valve	Action;FPS;Multiplayer	0	124534	3339
20	Team Fortress Classic	1999-04-01	1	Valve	Action;FPS;Multiplayer	0	3318	633
30	Day of Defeat	2003-05-01	1	Valve	FPS;World War II;Multiplayer	0	3416	398
40	Deathmatch Classic	2001-06-01	1	Valve	Action;FPS;Multiplayer	0	1273	267
50	Half-Life: Opposing Force	1999-11-01	1	Gearbox Software	FPS;Action;Sci-fi	0	5250	288

Model and Metrics

Pre-Processing

- Extract *identification tags* and filter out *non-popular* games

Item-based Collaborative Filtering

- Search for matches with similar steamspy tags
- Construct positive rating benchmarks and recommend based on pairwise correlation metrics.

Evaluation

- To measure the success of the App, we should ideally track the click-through-rate and conversion rate of users. If launched to the public, 20% CTR and 10% conversion rate can indicate the App is successful, which indicate that the user is interested at least 1 of the 5 games and 10% of users would purchase new games after recommendation.

- Only a small portion of the games have large bases of game users
- Like Steam's own promotion strategy, the recommender also tends to recommend high-rating/popular games
- Track CTR and conversion and the further analyze the correlation between these metrics and the recommended list
 - Adjust pricing strategy
 - Adopt more personalized recommendation: user active windows, retention propensity etc.

Thank You!

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