

Recommender System Using BoardGameGeek

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KICKSTARTER



BOARD
GAME
GEEK

Tabletop Simulator



Problem Statement

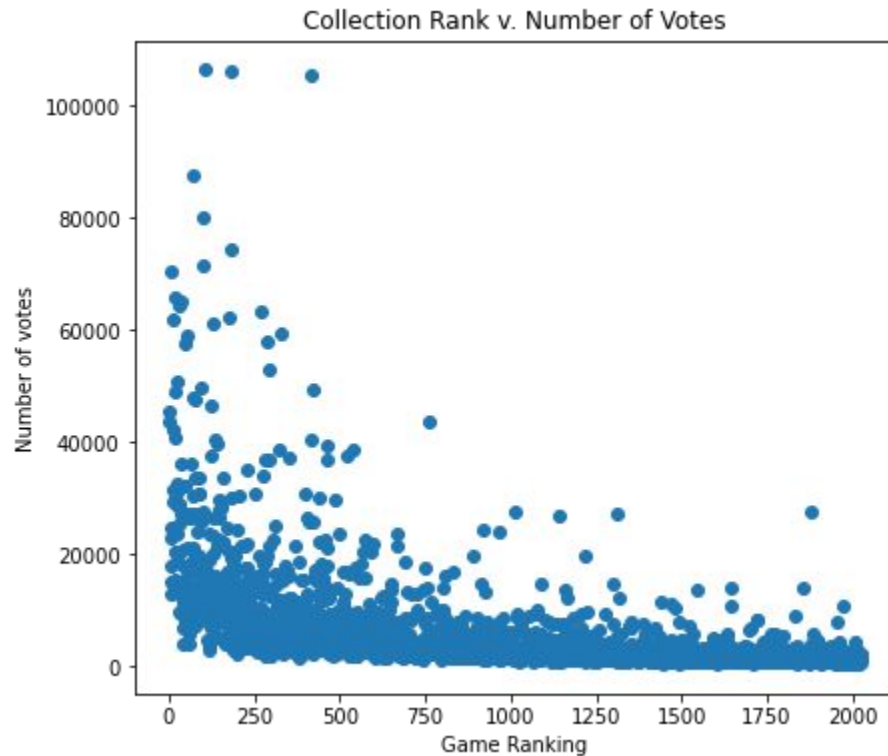
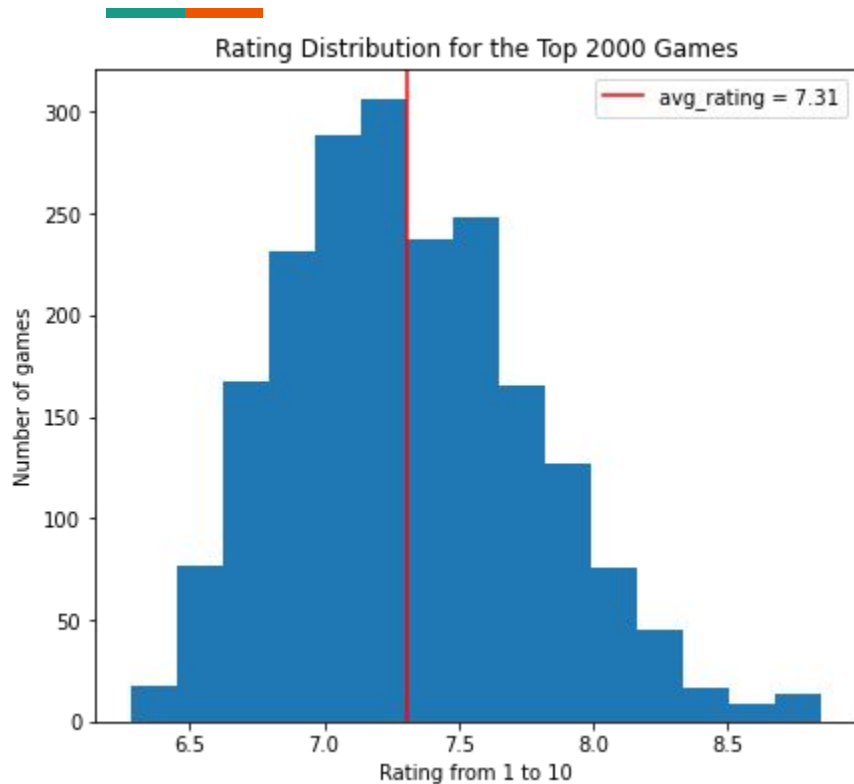


Board games are held back by issues in money and time. While basic party games range around \$25 or less, highly rated board games can easily cost upwards of \$50. Playing a new game can be difficult as you have to first read the rules, setup the game, explain the rules, and generally struggle for a bit.

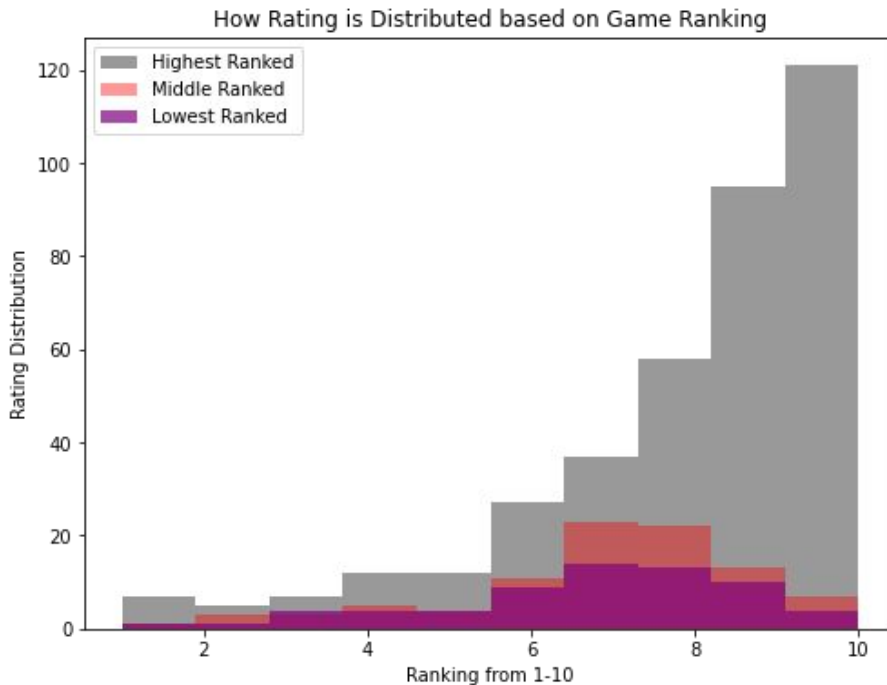
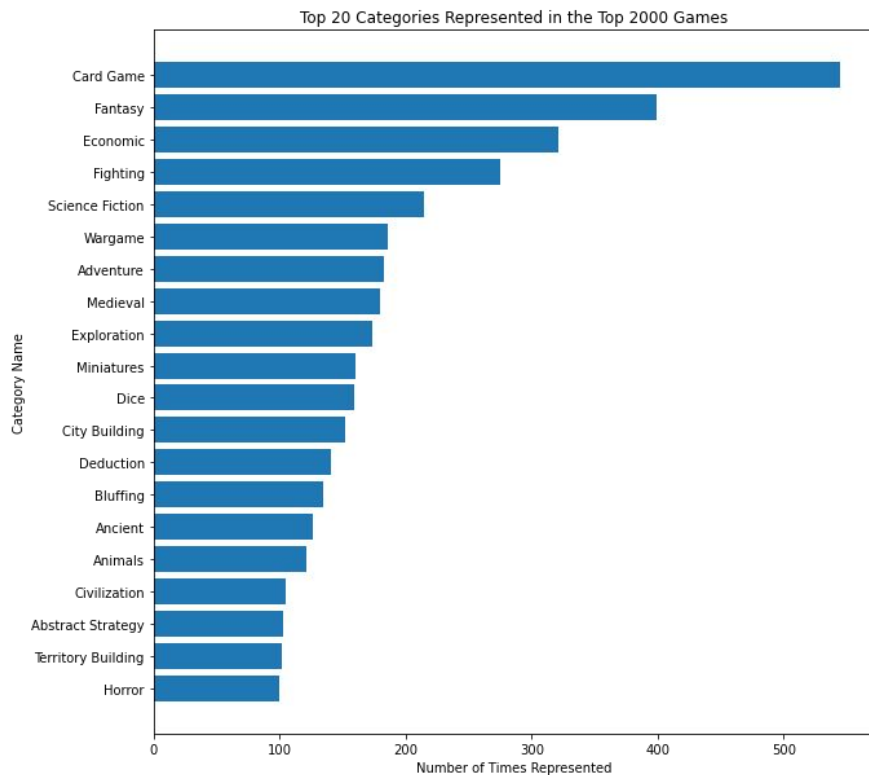
The main goal of this project is to use data gathered from BoardGameGeek in order to create a recommender system that provides board game recommendations based on personal interest. Users are recommended to have tried out a game or two from the top rankings of BoardGameGeek they find interesting and use this model to find recommendations. Can this model use data from BoardGameGeek to create appropriate recommendations for new board games?

Normally, this kind of model would use tangibles like web traffic, user reviews, or ad revenue as success metrics. For this project, I will act as my own evaluator and present observations on why it is successful.

Exploratory Data Analysis



Exploratory Data Analysis



Model Output and Evaluation

Hello, please input a search term.

Mechs

These are the top 10 recommendations for Mechs vs. Minions.

Blood Rage	0.306118
Scythe	0.294504
Pandemic Legacy: Season 1	0.291381
Gloomhaven	0.290727
T.I.M.E Stories	0.289507
Clank!: A Deck-Building Adventure	0.289443
The 7th Continent	0.267592
Terraforming Mars	0.266594
Santorini	0.265777
Mansions of Madness: Second Edition	0.261430

Name: Mechs vs. Minions, dtype: float64

The categories of Mechs vs. Minions are:
Fantasy, Fighting, Miniatures, Video Game Theme

These are the top 10 recommendations for Tiny Epic Mechs.

Tiny Epic Zombies	0.250777
Tiny Epic Quest	0.222402
Tiny Epic Defenders (Second Edition)	0.198636
Tiny Epic Dinosaurs	0.191123
Tiny Epic Western	0.182360
Tiny Epic Galaxies	0.173999
Tiny Epic Kingdoms	0.150796
Dinosaur Island	0.101837
Heroes of Land, Air & Sea	0.098456
Roll Player	0.098123

Name: Tiny Epic Mechs, dtype: float64

The categories of Tiny Epic Mechs are:
Fighting, Science Fiction

These are the top 10 recommendations for One Night Ultimate Vampire.

One Night Ultimate Werewolf: Daybreak	0.397262
One Night Ultimate Werewolf	0.271593
Two Rooms and a Boom	0.133020
Spyfall	0.131419
Deception: Murder in Hong Kong	0.128234
Coup	0.127868
Werewords	0.125992
Sheriff of Nottingham	0.123986
Coup: Rebellion G54	0.116398
Mysterium	0.114942

Name: One Night Ultimate Vampire, dtype: float64

The categories of One Night Ultimate Vampire are:
Bluffing, Card Game, Deduction, Horror, Party Game

These are the top 10 recommendations for The Great Zimbabwe.

Indonesia	0.444191
Antiquity	0.419678
Food Chain Magnate	0.345475
Roads & Boats	0.331509
Bus	0.324193
Arkwright	0.302415
Tramways	0.285678
1846: The Race for the Midwest	0.277219
Hansa Teutonica	0.273669
Age of Steam	0.270824

Name: The Great Zimbabwe, dtype: float64

The categories of The Great Zimbabwe are:
Civilization, Economic, Industry / Manufacturing, Prehistoric, Transportation

Conclusion and Recommendations



The model was successful based on several metrics. There are strong connections shown in the data as displayed by games in the same franchise and category relevance in the game recommendations.

Some limitations involved include a dependence on user interaction and static datasets. BoardGameGeek is a live service with constant updates.

I highly recommend people to include trying out a variety of popular board games from BoardGameGeek and give back to the community if possible.

Thank You! Any Questions?

