Exploring Video Game Recommendation Techniques
Stephany Liu, William Zeng

Background

• Extensive research done in movie recommendation, not as much in video games
• Video game industry worth $22.41 billion
• Average family owns at least one console

Approach

• Scrape 1000 user reviews of games using GiantBomb API for preliminary dataset
• Scrape game metadata for 14000 games from IGN (rating, category, console)
• Random forest classifier on user review description to predict rating as baseline
• Explore item-item and user-user collaborative filtering and feature engineering
• Try to predict enjoyment for unseen video games (time spent playing, rating given, number of trophies received in game)

Random Forest Classifier

• Effective in dealing with high-dimensional data
• Utilizes framework for more advanced machine learning algorithms and sets up pipeline
• Vectorize descriptions into tf-idk matrix using numpy, split dataset into train and test sets
• 0.48 accuracy in predicting using scikit-learn compared to 0.2 from randomly guessing 1 of 5 ratings