# Video Game Recommendations using Machine Learning Darragh Fahey G0035047

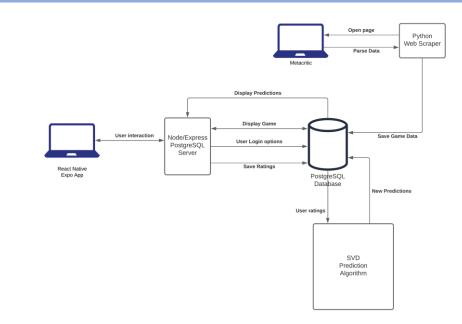
#### Introduction

For my project I wanted to create a website that would help people chose what game to buy and play, as an avid gamer myself I often find myself continually browsing the PlayStation store trying to pick a new game in between major releases.

# **Technologies Used**

The main technologies I used for this project were

- React Native
- Express/Node js
- PostgreSQL
- Python
- Surprise scikit
- Beautiful Soup
- Fetch API



Title : 1001 Spikes Platform : Playstation 4 Predicted Rating : 7.494248064252289 Title: Kingdom Hearts HD I.5 + II.5 Remix Title: Pinball FX3: Jurassic World Pinball Title : Touhou Kobuto V: Burst Battle - Youmu Konpaku Title: Rugby 20 Platform: Playstation 4 Predicted Rating: 7.534768299144387 Platform : Playstation 4 Predicted Rating : 8.178745213788247 Platform : Playstation 4 Predicted Rating : 7.562540140195898 Platform : Playstation 4 Predicted Rating : 7.533026545073103 Title : Assassin's Creed Origins Title: Far Cry Primal Title: Claire: Extended Cut Title: Dragon Ball Z: Kakarot Title: NieR: Automata Platform: Playstation 4
Predicted Rating: 7.403854265396896 Platform : Playstation 4 Predicted Rating : 7.371611193838337 Platform: Playstation 4 Predicted Rating: 7.388499025173363 Predicted Rating: 7.334820148302658 Predicted Rating : 7.302715718506575 BACK 10 NEXT 10

### Web scraper

I created a web scraper that opened a connection to Metacritic using the urllib python library, once I had the connection opened, I used beautiful soup to parse through the html file and get the information I was looking for.

#### React Native App

Above you can see an

example of 10

predictions for a test user.
I created a react native app and used fetch API calls to get the data you see from my
PostgreSQL database.
When not logged in the user can see the toprated games from Metacritic.

# SVD Algorithm

The predictions were made using the singular value decomposition model, and collaborative filtering. If a user A has made similar ratings to user B, then user A will get higher ratings for items B has recommended.