GAME ALGORITHM

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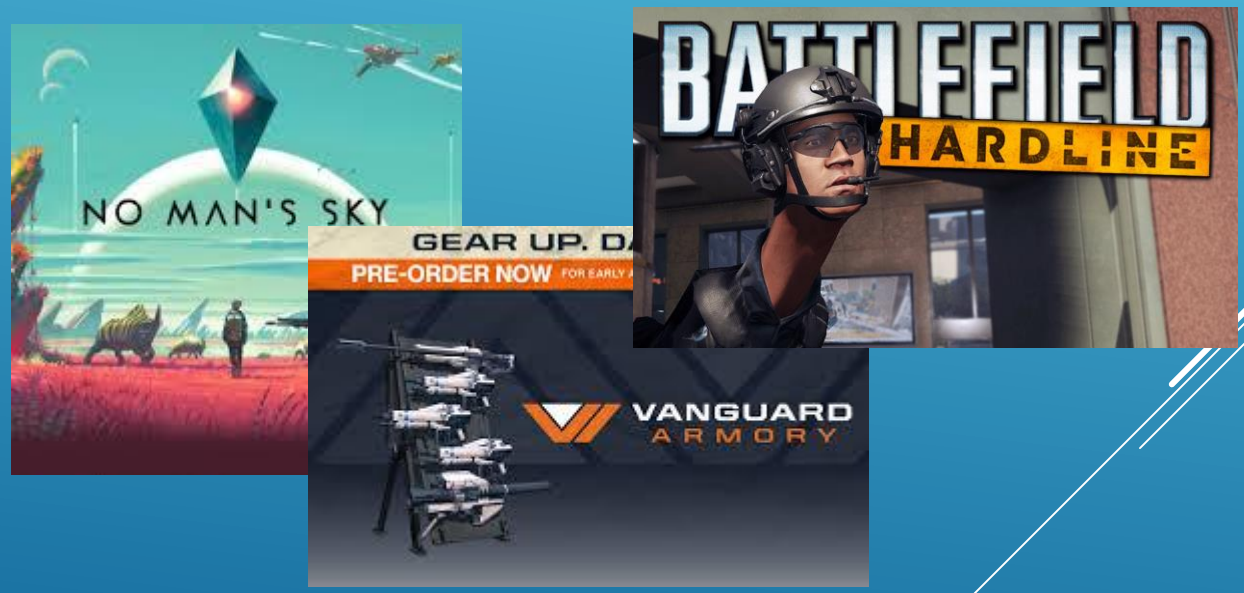
INTRODUCTION

- We've probably all gotten buyer's remorse at least once
- Becoming increasingly common in video game market
  - Pre-Order Bonuses
  - Review Embargoes
  - Release Day Bugs
  - EA



INTRODUCTION (CONT'D.)

- User will input a game, and some simple info about it, and the algorithm will determine whether the user should:
  - Purchase the game
  - Wait to purchase the game until the price drops/until more information is available
  - Consider other games similar to the one in question, or
  - Not purchase the game

METHOD

- Step 1: Enter game info
  - Genre
  - Critical Score out of 10
  - User Score out of 10
  - Publisher Score out of 10
- Step 2: Compare game to other games in user's library (same genre)
  - Convert into score out of 10
- Step 3: Analyze average amount of hours played in that genre
  - Convert into score out of 10
- Step 4: Use Neural Network to compile final score
- Insufficient data = 5/10

METHOD (DATA)

- My Steam library (~70 games)
- My friends' Steam libraries (31 friends with ~10-150 games each)
- Still not enough? Randomly generate data

- 2 Spreadsheets:
  - Genre & Hours Played
  - Score Sheet

- Use Neural network to compile data
  - For training set, use average of scores
- The final score is determined as follows:
  - 1 = User should not purchase game
  - 2 = User should reconsider desire to purchase game
  - 3 = User should wait for reduced price/explore other similar titles
  - 4 = User should purchase the game

METHOD (FINAL SCORE)

EXAMPLES/EXPERIMENTS

- Final Fantasy XV just came out. Is it worth buying? Let's find out:

- Genre: RPG
- Critical Score: 8/10 (*Source: Metacritic.com*)
- User Score: 8/10 (*Source: Metacritic.com*)
- Publisher: Square Enix, 7/10 (*Source: Metacritic.com*)
- Library: Out of the 70 or so games I own, only about 8 are RPGs, 1.1/10
- I've played these 8 games collectively about 75 hours, and my total play time is about 500 hours 1.5/10
- Final Score: 5.12/10, 3/4
- Consensus: I should probably wait for the game to go on sale

EXAMPLES/EXPERIMENTS

EXAMPLES/EXPERIMENTS

- Mafia III
  - Genre: Action
  - Critical Score: 7/10
  - User Score: 5/10
  - Publisher Score: 7/10
  - Library: The majority of games I own are in the Action genre, 8/10
  - Hours played: Hundreds, 8/10
  - Final Score: 7/10, 3/4

EXAMPLES/EXPERIMENTS

- Forza Horizon 3
  - Genre: Racing
  - Critical Score: 9/10
  - User Score: 8/10
  - Publisher Score: 7/10
  - Library: I don't own any racing games, 0/10
  - Hours played: 0/10
  - Final Score: 4.8/10, 2/4

CONCLUSIONS

- Algorithm appears to be only slightly swayed by contents of user's library
- Implementing neural network should make for more accurate results
- Python is hard
  - Still working on code
  - See picture ➔