STEAM DATA CHALLENGE

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THE PROCESS

Classification

001

EDA - Sentiment -
Profanity -
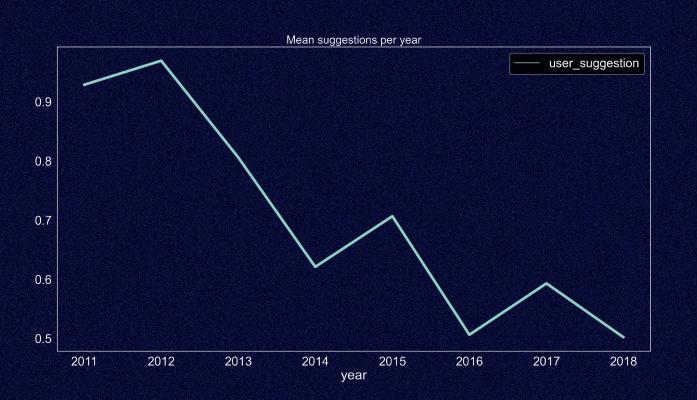SpellChecker

002

003

Prediction

001

002

003

01
EDA, Language and Sentiments

EDA

Top 10 games:
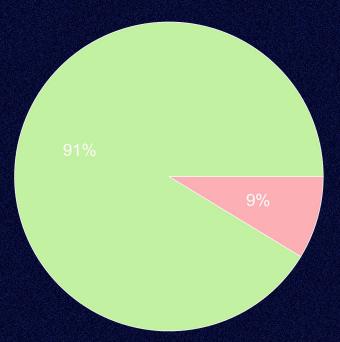
EverQuest II	97 %
Fractured Space	95 %
Path of Exile	90 %
Creativerse	90 %
PlanetSide 2	89 %
Tactical Monsters Rumble Arena	89 %
Spooky's Jump Scare Mansion	88 %
Ring of Elysium	87 %
Brawlhalla	86 %
Shop Heroes	86 %

Bottom 10 games:

RoboCraft	5%
Heroes & Generals	11%
War Thunder	16%
Bless Online	21%
Infestation: The New Z	26%
Cuisine Royale	37%
Bloons TD Battles	41%
theHunter Classic	44%
Trove	45%
RaceRoom Racing Experience	46%

Language

95 of 1000 comments had at least one censorable word.

91%

9%

Example after censoring:

Comment 14536:

Early Access ReviewToo much RNG from the loot and lack of progression.The game goes for a complete overhaul once every few month and turn all your work into dust. But the same old bug never gets fixed.Don't waste your time on this piece of ****.

Language

Spell checking:

Our spell-checking algorithm finds any word which is not included in our vocabulary.

Vocabulary =

all english words
+
Gaming jargon

Example:
Comment 5376:

it was good until i realized how overpowered the tier 3 russian things were. the game has been out for so long and is still more broken than battlefield 1 beta. this game is absoulote trash and it deserves to be abandon by its players so maybe the devs will take some time and fix it

Outcome:
['absoulote']

SENTIMENT

Happy comments:

- (540) Fun game… Customer Service is great… I have alot of hours into this and enjoy it very much… Wish the maps were bigger and more time for battles but otherwise great game for me.…   {'Happy': 1.0, 'Angry': 0.0, 'Surprise': 0.0, 'Sad': 0.0, 'Fear': 0.0}
- (395) *click click*yeah it's pretty good o_o   {'Happy': 1.0, 'Angry': 0.0, 'Surprise': 0.0, 'Sad': 0.0, 'Fear': 0.0}

SENTIMENT

Angry comments:

- (347) F*** this game.Spent atleast over 20 dollars had handys and pets galour.Half my dwellers stats were maxd out.AND THEN…… OUTTA NO WHERE........ MY VAULT CEASES TO EXIST.waste-o-money `{'Happy': 0.0, 'Angry': 1.0, 'Surprise': 0.0, 'Sad': 0.0, 'Fear': 0.0}`
- (932) huge wate of time and money, i payed hundreds of dollers just to spand half the game travaling the other haldf raging becouse a russian tank oneshots my tank after i hit him 3 times directly. `{'Happy': 0.0, 'Angry': 1.0, 'Surprise': 0.0, 'Sad': 0.0, 'Fear': 0.0}`

02

CLASSIFICATION

METHODOLOGY

001

Clean data from
non-alphabetical characters

002

Classify using Deep Learning

003
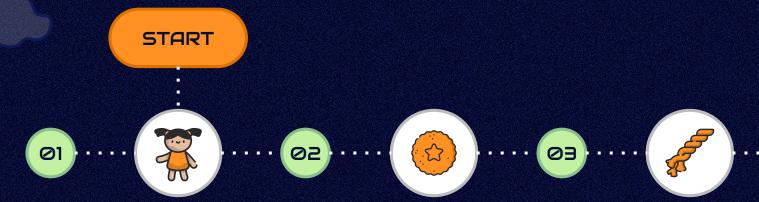
Predict Positive VS Negative

004

Terminal App

Classification with Deep NNs

START

01 **Clean Data**

Remove all
non-alphabetical
characters

02 **Transfer
Learning**
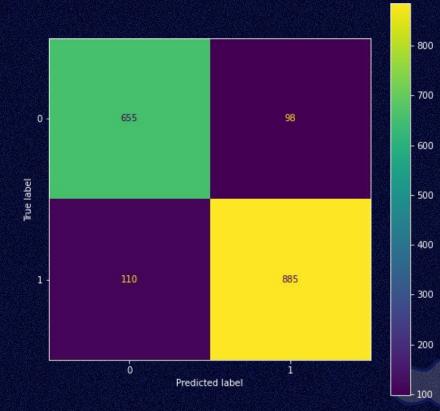
Re-train
nnlm-en-dim50 a
deep NN with our
data

03 **Classify**

Positive Vs
Negative Reviews

13

Classification Results

	precision	recall	f1-score	support
0	0.86	0.87	0.86	753
1	0.90	0.89	0.89	995
accuracy			0.88	1748

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ARFA app

From terminal soon in the BigBlue App Store

```
Welcome to Amazing Review Fitlering App (ARFA)

Please put reviews for testing into the "incoming" folder and type "ok"


ok

2022-02-05 19:45:44.963234: I tensorflow/core/platform/cpu_feature_guard.cc:151] This TensorFlow binary is optimized with oneAPI Deep
Neural Network Library (oneDNN) to use the following CPU instructions in performance-critical operations:  AVX AVX2
To enable them in other operations, rebuild TensorFlow with the appropriate compiler flags.
2022-02-05 19:45:45.619849: I tensorflow/core/common_runtime/gpu/gpu_device.cc:1525] Created device /job:localhost/replica:0/task:0/
device:GPU:0 with 2822 MB memory:  -> device: 0, name: Quadro M1000M, pci bus id: 0000:01:00.0, compute capability: 5.0
-----------------------------------------------------------

There are 4541 positive and 3504 negative Reviews

Type a number from 0 to 8045 to see our prediction:
```