

# Shoot Your Shot!: A FPS Recommendation Engine











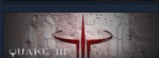





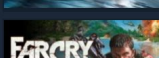

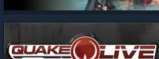

Developer:  
Jake Moon




# The Steam Game Search Experience™

enter search term or tag   Search   Sort by Relevance ▾


60 results match your search.

	DOOM	May 13, 2016	 -70%	\$19.99 \$5.99
	Insurgency: Sandstorm	Dec 12, 2018		\$29.99
	Counter-Strike: Source	Nov 1, 2004		\$9.99
	Hand Simulator VR Supported	Jul 18, 2017		\$1.99
	Doom Classic Complete		 -70%	\$14.99 \$4.49
	Quake III Arena	Aug 3, 2007		\$14.99
	Hot Lava	Sep 19, 2019		\$19.99
	Alien Rage - Unlimited	Sep 24, 2013	 -85%	\$19.99 \$2.99
	Far Cry®	Apr 1, 2008		\$9.99
	Quake Live™	Sep 17, 2014		\$9.99

Narrow by Price 

Any Price


☐ Special Offers

Narrow by preferences 

☐ Hide ignored items

☐ Hide items in my library

☐ Hide items on my wishlist

Narrow by tag 

☒ Multiplayer

☒ FPS

☒ Difficult

☐ Action 57

☐ First-Person 55

☐ Shooter 49

☐ Singleplayer 41

☐ Sci-fi 29

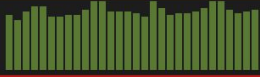


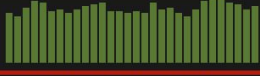






☐ Great Soundtrack 28

- Difficult to navigate
- Tags are basic and generic
- Results not necessarily best fits, or even multiplayer
- Need for curation

# Why FPS recommendations?

- Multiplayer FPS games constitute the highest played genre on Steam
- Specific topics within this genre deemed important by the actual players
- Want active games with reviews <2 years
- Each game has unique mechanics and community that can be extracted from reviews

## Top Games By Current Players

	Name	Current Players	Last 30 Days	Peak Players	Hours Played
1.	Counter-Strike: Global Offensive	358,637		901,305	384,336,467
2.	Dota 2	242,176		663,518	290,621,815
3.	Tom Clancy's Rainbow Six Siege	75,422		178,824	69,560,331
4.	Team Fortress 2	67,901		78,211	42,686,438
5.	Grand Theft Auto V	67,002		267,360	102,688,057
6.	PLAYERUNKNOWN'S BATTLEGROUNDS	60,701		606,689	185,644,461
7.	ARK: Survival Evolved	56,410		85,661	36,085,142
8.	MONSTER HUNTER: WORLD	48,508		224,419	78,823,458
9.	Destiny 2	45,506		92,543	44,668,332
10.	Rust	43,295		92,016	35,688,351

More

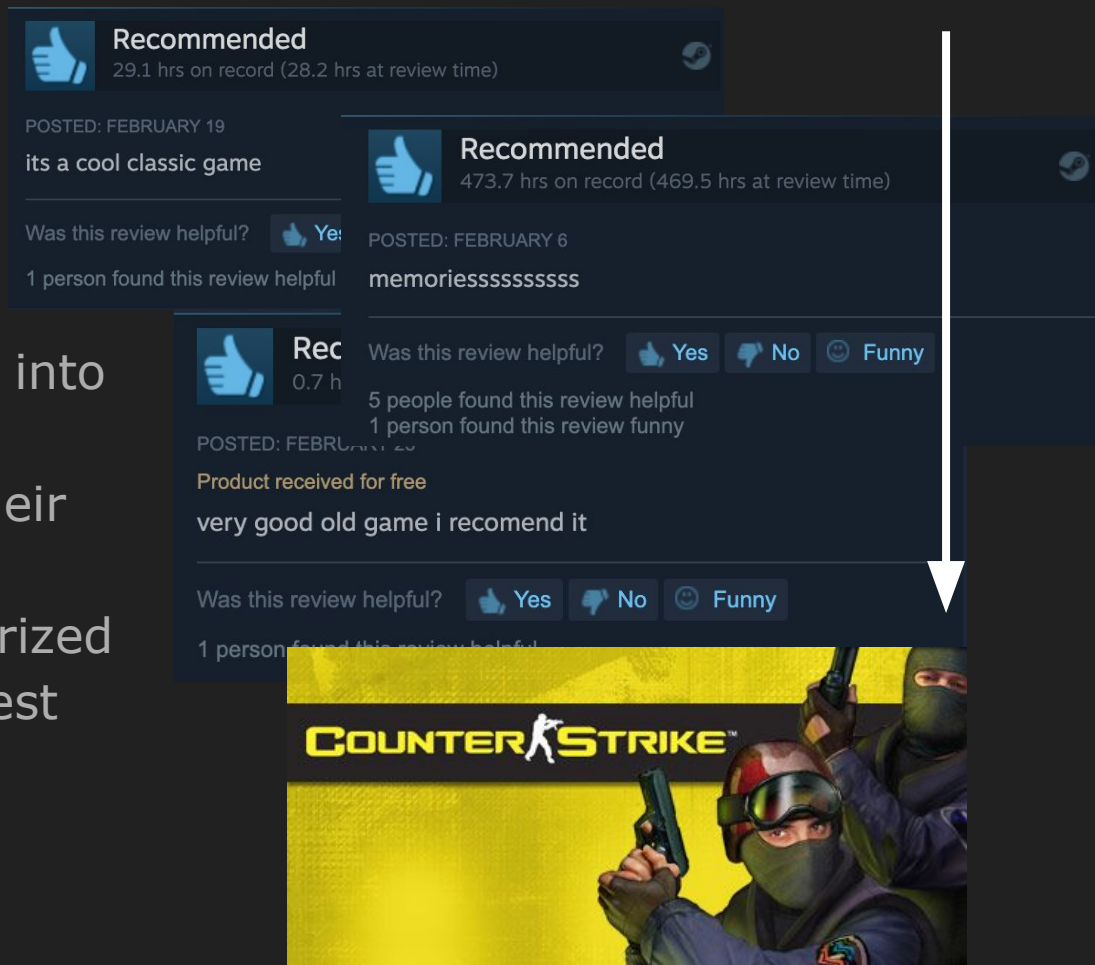
# Workflow and Methodology



“Looking for a challenging classic”

# How It Works

- Reviews are cleaned and stemmed
- Vectorized with TF-IDF
- NMF to reduce dimensions into 20 topics
- Games are averaged by their review vectors
- New search query is vectorized and finds games with closest cosine similarity





competitive market looking gaming challenging skill opinion  
looking competitive competitive one competitive side ranked  
aspect casual competitive win competitive toxic mechanics competitive matches  
side  
casual prime anyone  
**competitive**  
competitive casual competitive scene competitive aspect one competitive friends competitive  
strategic competitive gaming competitive team scene strategy match competitive community  
adding balanced market

toxic hard enjoyable ignore non  
toxic one toxic russians less **community toxic**  
alot non toxic competitive toxic  
past alot toxic  
chat meet hackers toxic  
handle toxic friends  
friends toxic however  
I ma toxic teammates  
toxic team toxic commun  
ruin cheaters toxic  
although  
toxic funny toxic community toxic kids solo  
careful teammates lil one toxic  
full less toxic russians  
**toxic**  
ranked beware except mute  
otherwise commun hard toxic deal  
toxicity everywhere everyone toxic  
servers toxic toxic toxic kids  
playerbase salty addicting russian  
community everyone honestly ppl  
full toxic casual funny people  
**toxic community**

pick understand hard solo hard one  
hard beginning rewarding easy hard  
addicting  
solo friends hard  
hard rewarding  
master hard hard  
hard core easy learn  
hard friends funny  
hard toxic  
hard learning hard understand challenging  
beginning toxic hard beginner  
starting one hard  
hard run challenge learn  
goes hard started  
beginners  
easy rage hard learn  
hard master  
becomes really win learn hard  
easier

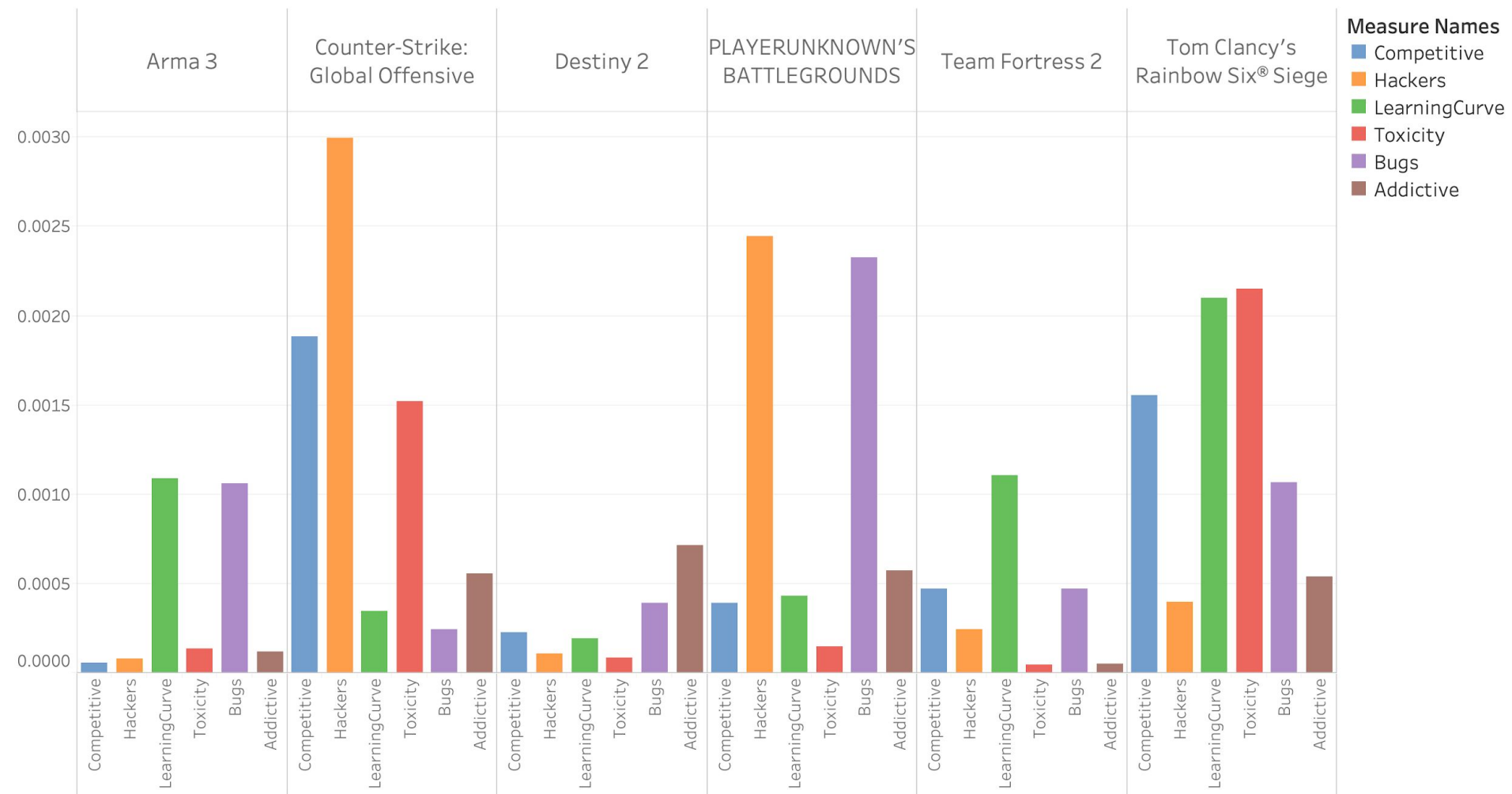
vac  
smurfs amount cheaters cheater ruined  
hackers cheaters ruin cheaters toxic cheat anti cheat **full cheaters**  
problem everywhere  
ban cheaters  
chinese full **cheaters** anti prime  
alot cheaters russians  
cheaters cheaters cheaters prime banned cheaters everywhere  
without cheaters hackers less cheaters ban cheating  
prime cheaters  
matchmaking alot  
free cheaters

meet non  
modes amount opinion general online group bunch  
serious listening balanced growing feedback honestly  
lovely cancerous less toxic developer dedicated cons  
mics supportive care community downside community devs  
mod community servers community pros community helpful  
mod community mostly weird problem community constantly  
besides devs listen non toxic enjoyable ranked annoying care  
workshop moments hilarious willing despite except  
garbage positive created skins racist ruined ruins

part look  
fight head naked actual addiction weapons  
military simulator real world hardcore almost  
intense sound  
gem except feels ai military  
lets looking practice gamers feels real  
gamer grind real require sim  
minecraft ptsd simulator  
scary realism battle royal  
very closest believe real war  
salt army vietnam ptsd  
bots rob gives sounds grind simulation immersive bullet dope  
lif video strategy graphic gonna true  
funny quick aren't bullshit guys deal royale  
real quick shot strategic tactics challenge royal  
realy battle royale squad war real friends  
skins world combat nostalgia real oh nostalgia  
real problem battle ww simulator men  
situations question moment soldier action currency  
special forget heist physics gave fast

## \*community and developer interactions

combat performance computer runs  
original graphics beautiful graphics options story optimization high realism  
immersive graphics mechanics look graphics sound enhanced graphics controls storyline quality card stunning  
physics sound  
run mechanics  
beautiful low  
graphics settings  
audio graphics one price  
graphics smooth graphics card graphics story realistic graphics controls atmosphere  
weapons graphics friends sound graphics incredible one graphics settings  
gunplay  
average fix bugs bugs annoying glitches bugs dayz short  
broken issues  
alot bugs bugs bugs  
bugs fixed fix  
crashes  
despite fixed  
beautiful  
annoying breaking bugs update  
bugs nothing minor audio  
fixing bugs fix  
fixing bugs  
full bugs crashes minor bugs  
problems bugs glitches  
glitches full bugs bug  
devs lag funny





# Recommendation App

 Shoot Your Shot!



Suggested tags: simulator, casual, community, competitive, hackers, toxic, learning curve, mmo, old classic, beautiful graphics

competitive classic

Submit

## Counter-Strike



Store Page

Steam Charts

# Future Work

- Game reviews and recommendations for other platforms
- Show actual reviews most similar and relevant to user search terms to give more context directly on app
- Interactive tags for streamlined searching and slider for number of recommendations
- Capture more topics through modeling
- Incorporate peer group to improve predictions



# Questions?



**Case Doge**

43 products in account

2 reviews



**Recommended**

2,695.5 hrs on record (766.1 hrs at review time)



POSTED: AUGUST 1, 2015

IQ tests should be mandatory before being able to play  
matchmaking



**HugoHuge**

30 products in account

1 review



**Not Recommended**

2,422.9 hrs on record (2,142.0 hrs at review time)



POSTED: NOVEMBER 8, 2019

lost my wife and kids because im addicted to this game they  
took the house im playing in a dumpster



**RaptorR**

962 products in account

3 reviews



**Recommended**

1,150.1 hrs on record (825.9 hrs at review time)



EARLY ACCESS REVIEW

POSTED: DECEMBER 19, 2017

Fun and challenging for both you and your pc.

Was this review helpful?



Yes



No



Funny

6,990 people found this review helpful

15,617 people found this review funny

184

