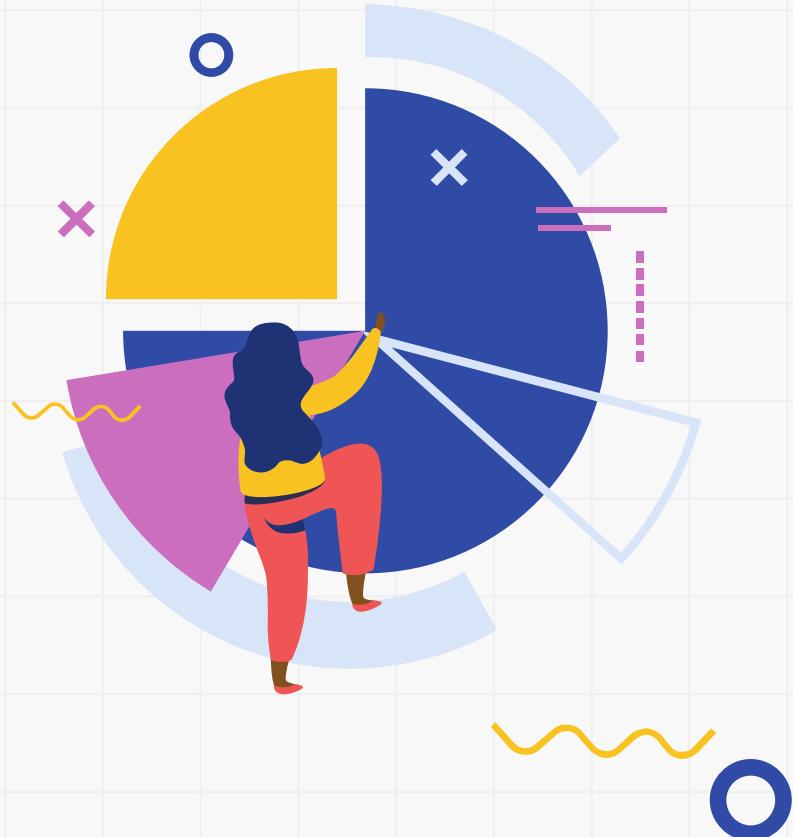


Virtual Wave: Unveiling the Gaming World

Group 7
Henry, Adon, Tina, Dreama





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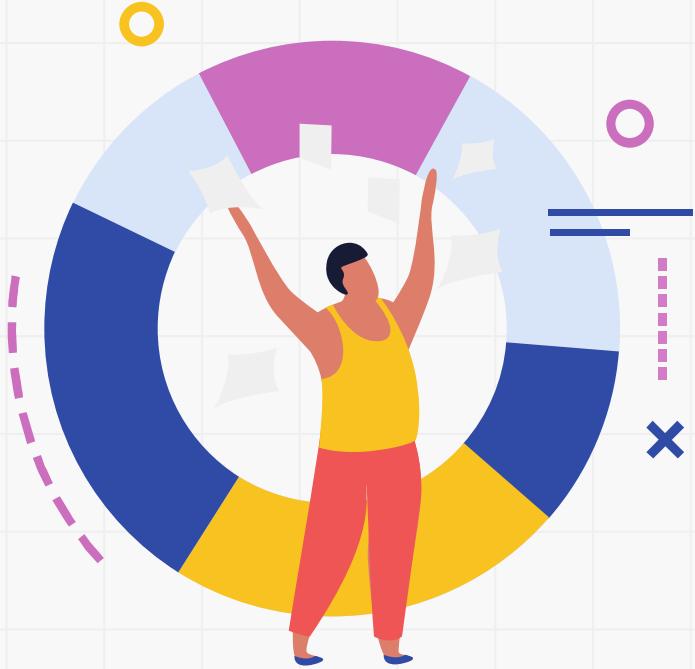
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01

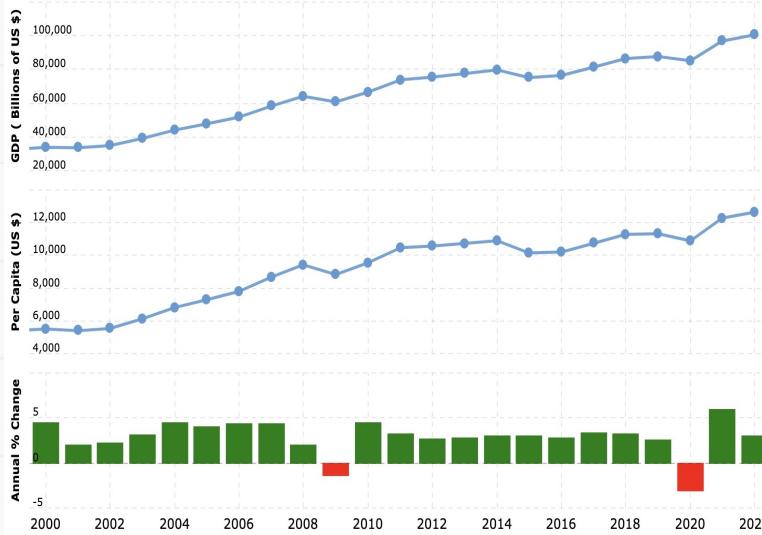
Introduction & Data Description

ZHANG Meiyi



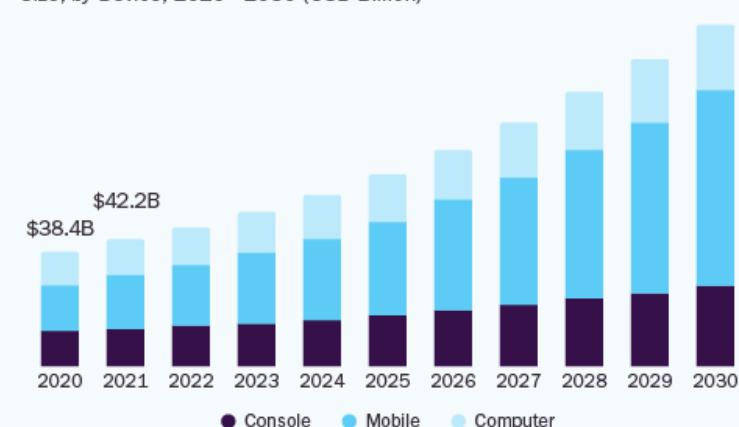
Project Background

According to the latest market research, the overall economic situation has shown a complex and volatile trend. However, the video game market has shown strong growth, the global video game market was valued at USD 217.06 billion in 2022 and is expected to grow at a CAGR of 13.4% from 2023 to 2030.



U.S. Video Game Market

Size, by Device, 2020 - 2030 (USD Billion)



Data Description

This Dataset was obtained from the official websites of major platforms, and includes a series of detailed information about video games.

Categorical	Quantitative	Ordered	Others
Game Features	Original Price	Recent Reviews Summary	Game Description
Supported Language	Discounted Price	All Reviews Summary	Developer
Popular Tags	Release Date		Publisher
	Average Players by month/year		
	Sales Data		
	Recommandation Data		



Data Description

a. Economic dimension

b. Time dimension

c. Community interaction

d. Diversity



Data Preprocessing

Data Cleaning

- Standardize the dataset
- Filter the data which needed
- Remove all null values

Feature Engineering

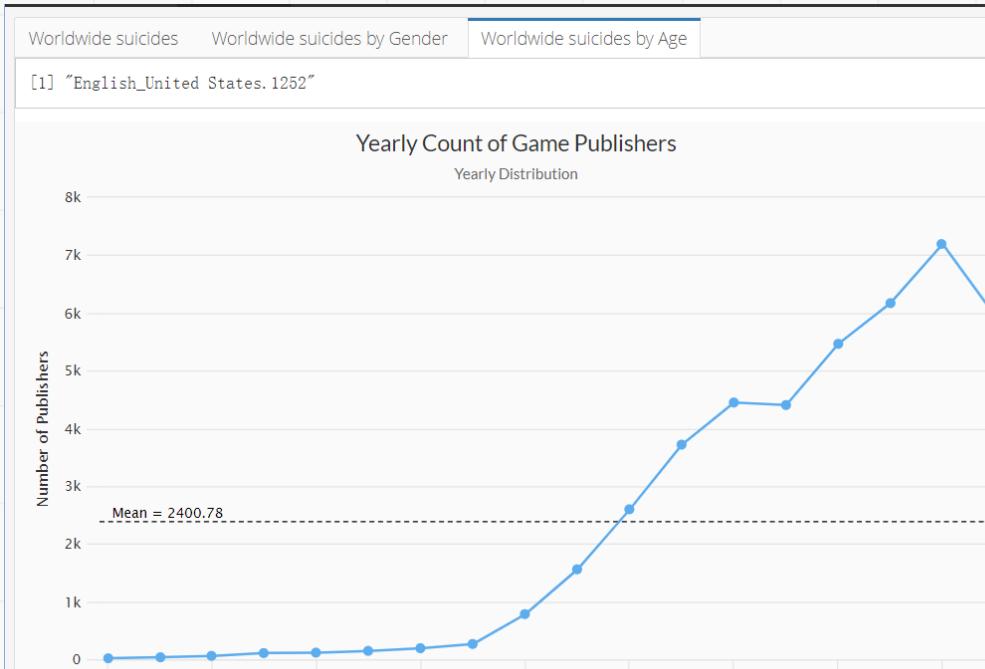
- For example:
- Year Extraction from 'Release.Year'
- Refining 'Features' and 'Tags'
- **Transforming** the 'Review' Field



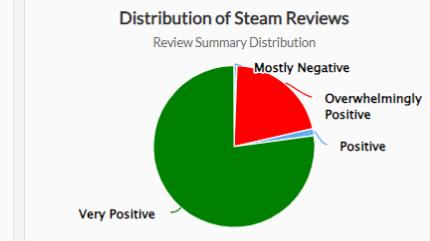


Basic graph

Line chart and pie charts



71700
Total Game Count (1980-2023)

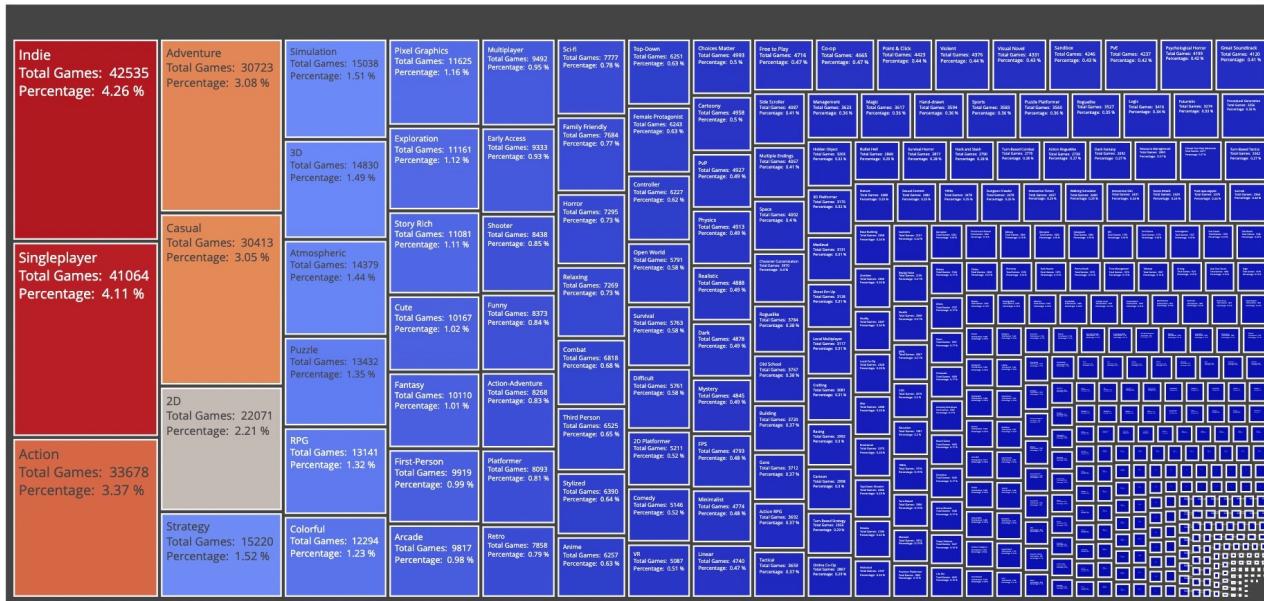




Basic graph--Tree Map

Tree map-Most Popular Tag

Most Popular Tag



O

Basic graph--Tree Map

Tree map-- most Powerful Publisher

Most Powerful Publisher



X

02

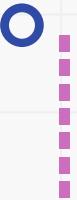
Price Analysis

ZHONG Hailin





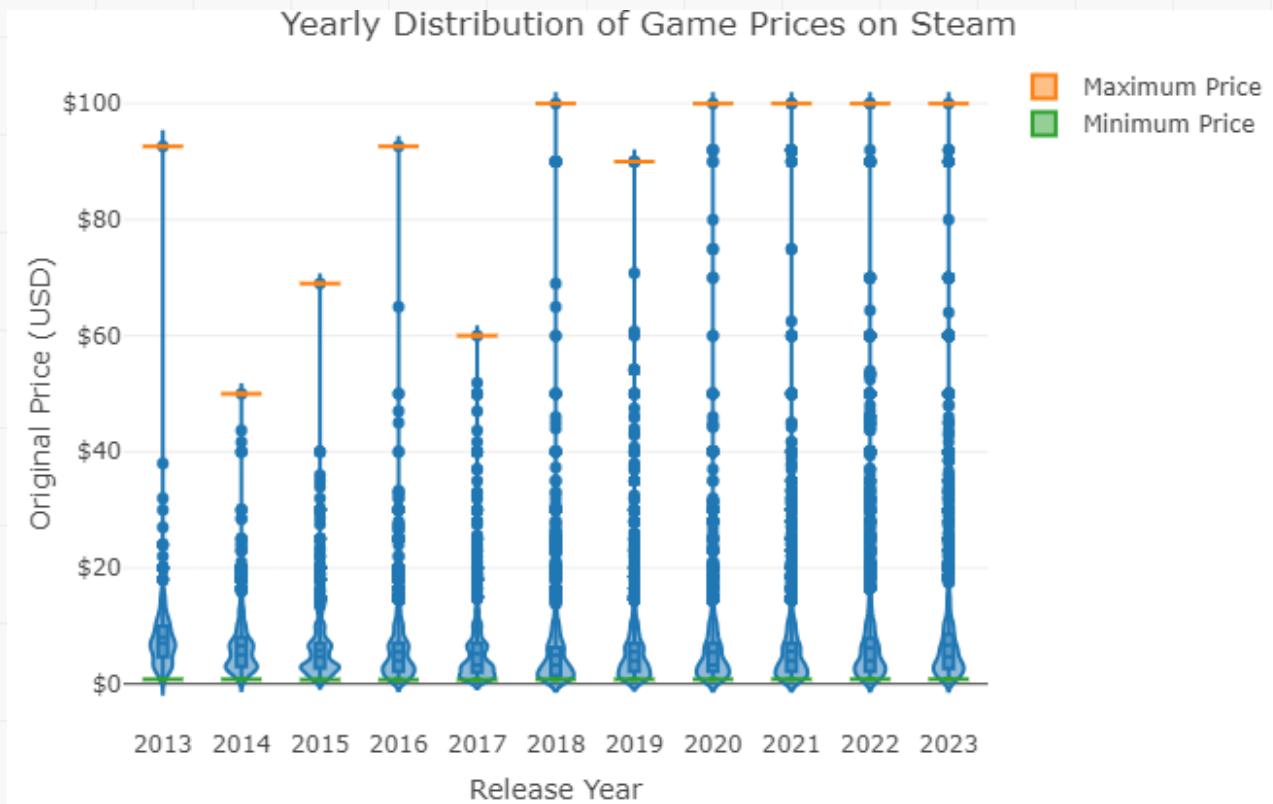
Questions About Price Analysis



1. What is the trend of price in recent years, and what is the distribution of the most expensive and cheapest prices?
2. What is the relationship between the price of a game and the number of tags in a game, and does a more expensive game have more tags, or vice versa?
3. What is the relationship between the price of a game and total number of games publisher have released, does the more games the publisher releases, the higher the price of the game they release, or vice versa?
4. What is the relationship between the price of a game and the release year, does the price will be more expensive, or vice versa?

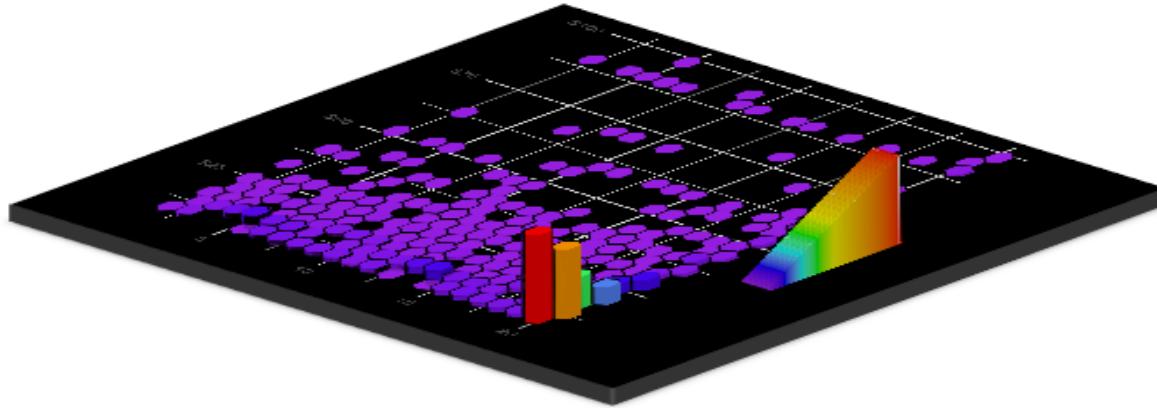


What is the trend of price in recent years, and what is the distribution of the most expensive and cheapest prices?



O

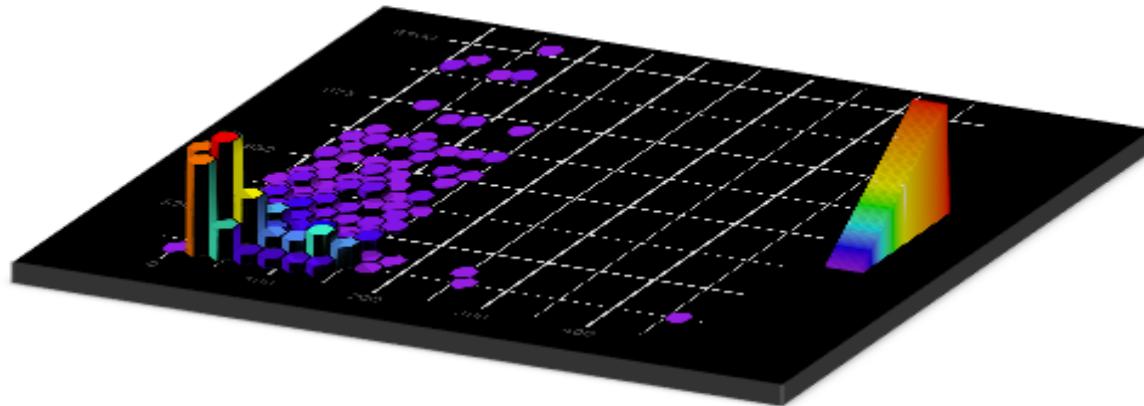
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X

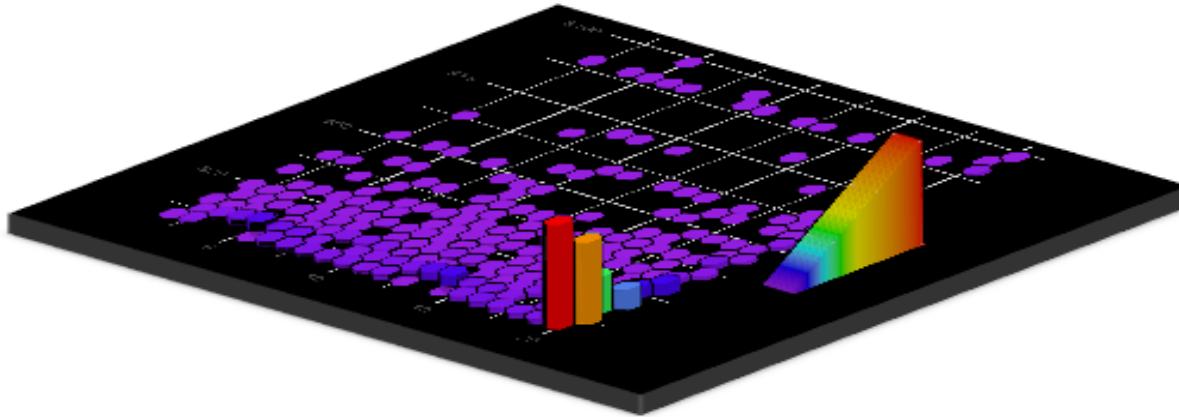
O

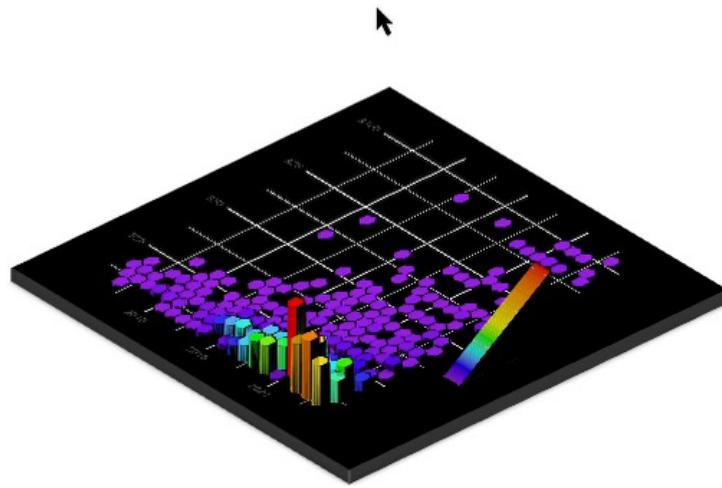
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X

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O



X

03

Publisher & Tag Analysis

ZHONG Hailin



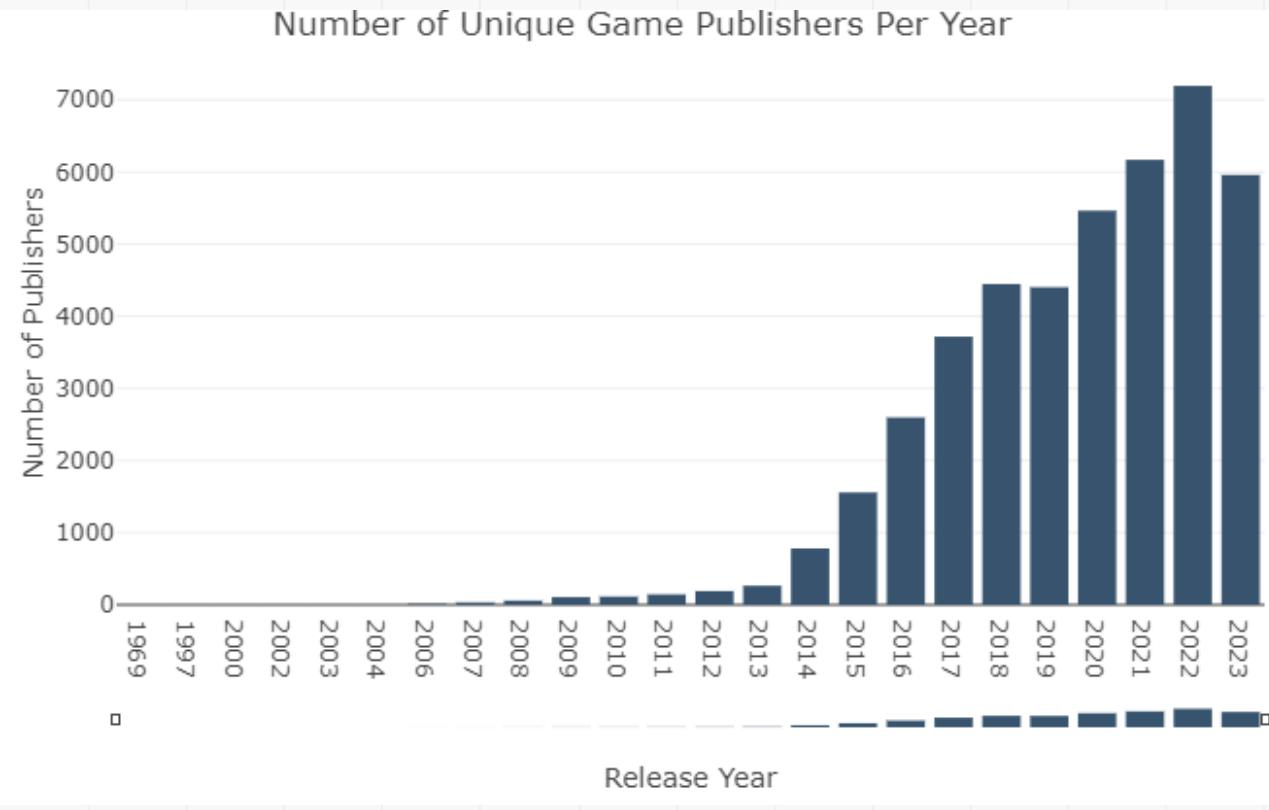


Questions About Publisher & Tag Analysis

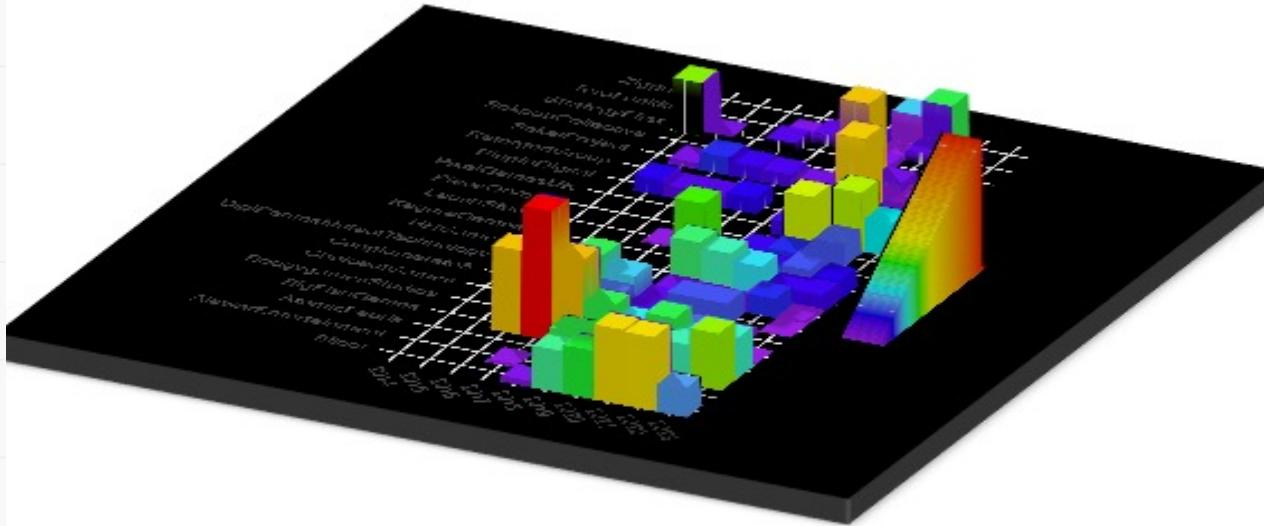
1. What is the trend of publishers in recent years, does the number of publishers are increasing, or vice versa?
2. What is the relationship between the total number of released games by TOP 20 publishers and year, does the more games the publisher releases, the higher the price of the game they release, or vice versa?
3. What is the trend of the tags by year, does every number of games of each tag are increasing, or vice versa, or whether there is a certain tag will suddenly increase or decrease dramatically?

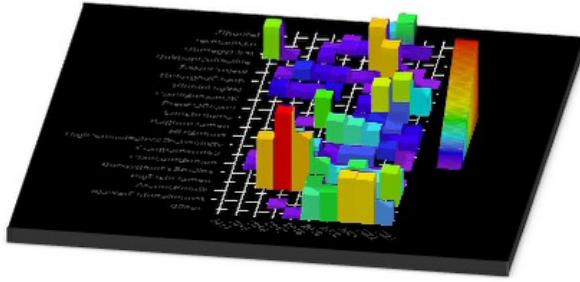


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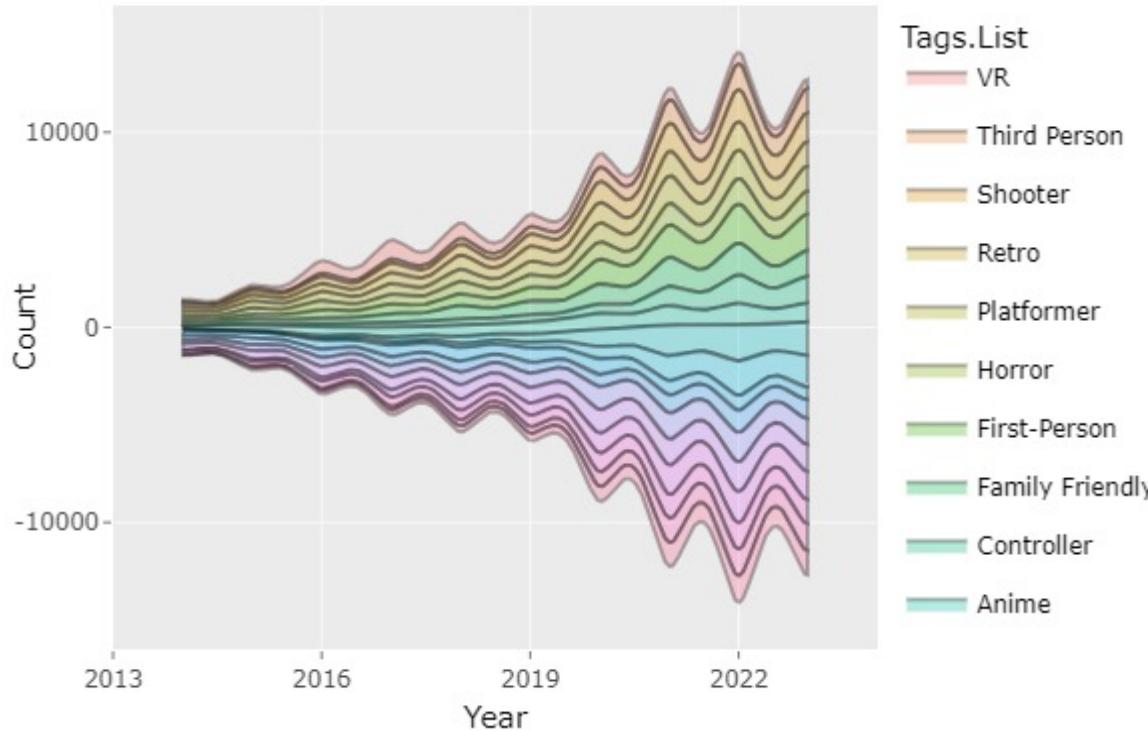
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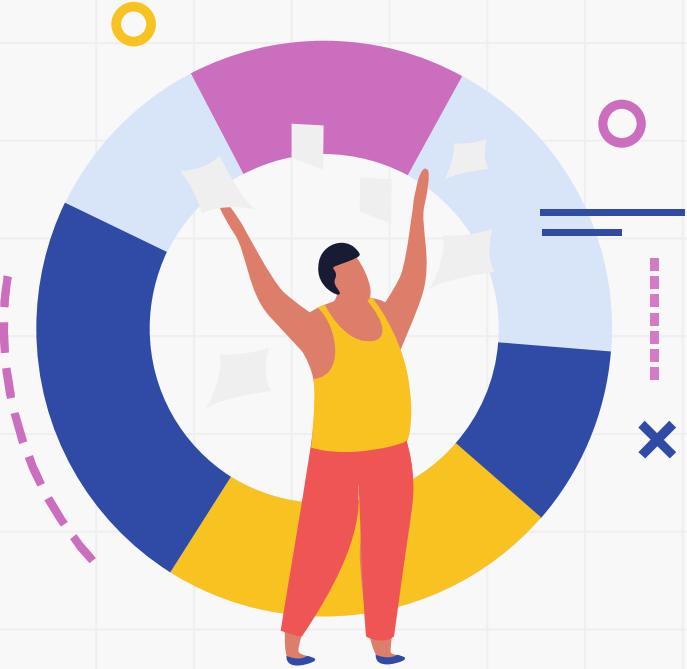






What is the trend of the tags by year, does every number of games of each tag are increasing, or vice versa, or whether there is a certain tag will suddenly increase or decrease dramatically?



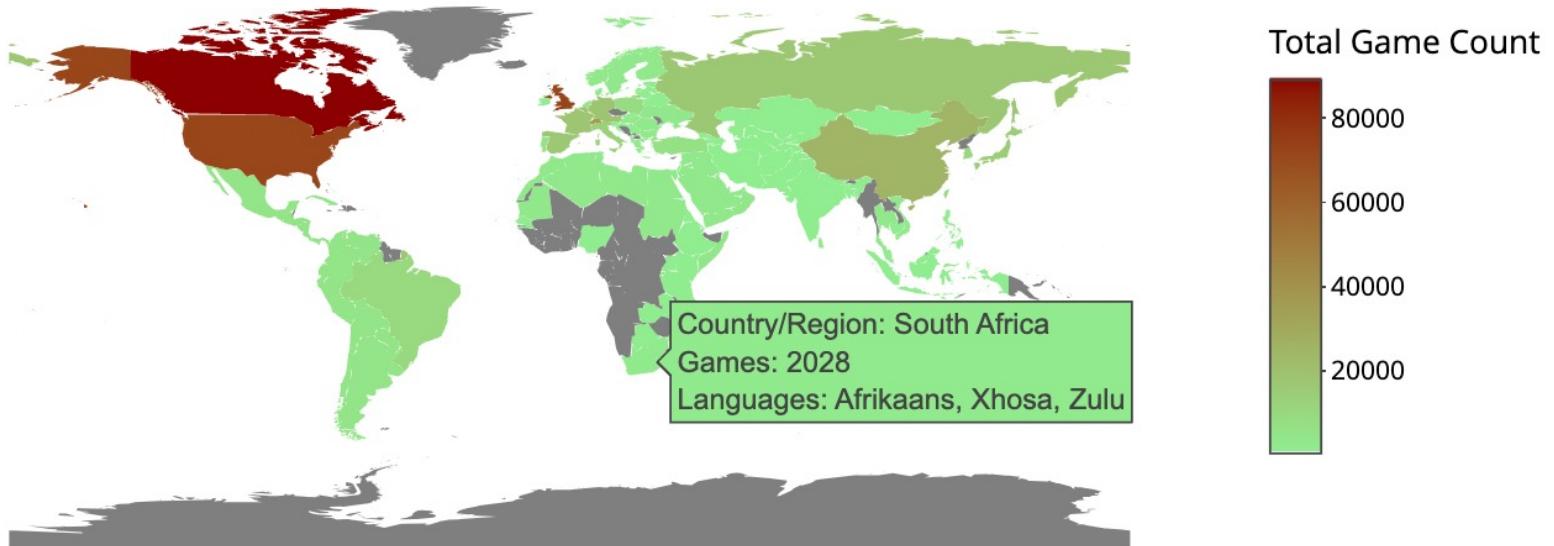


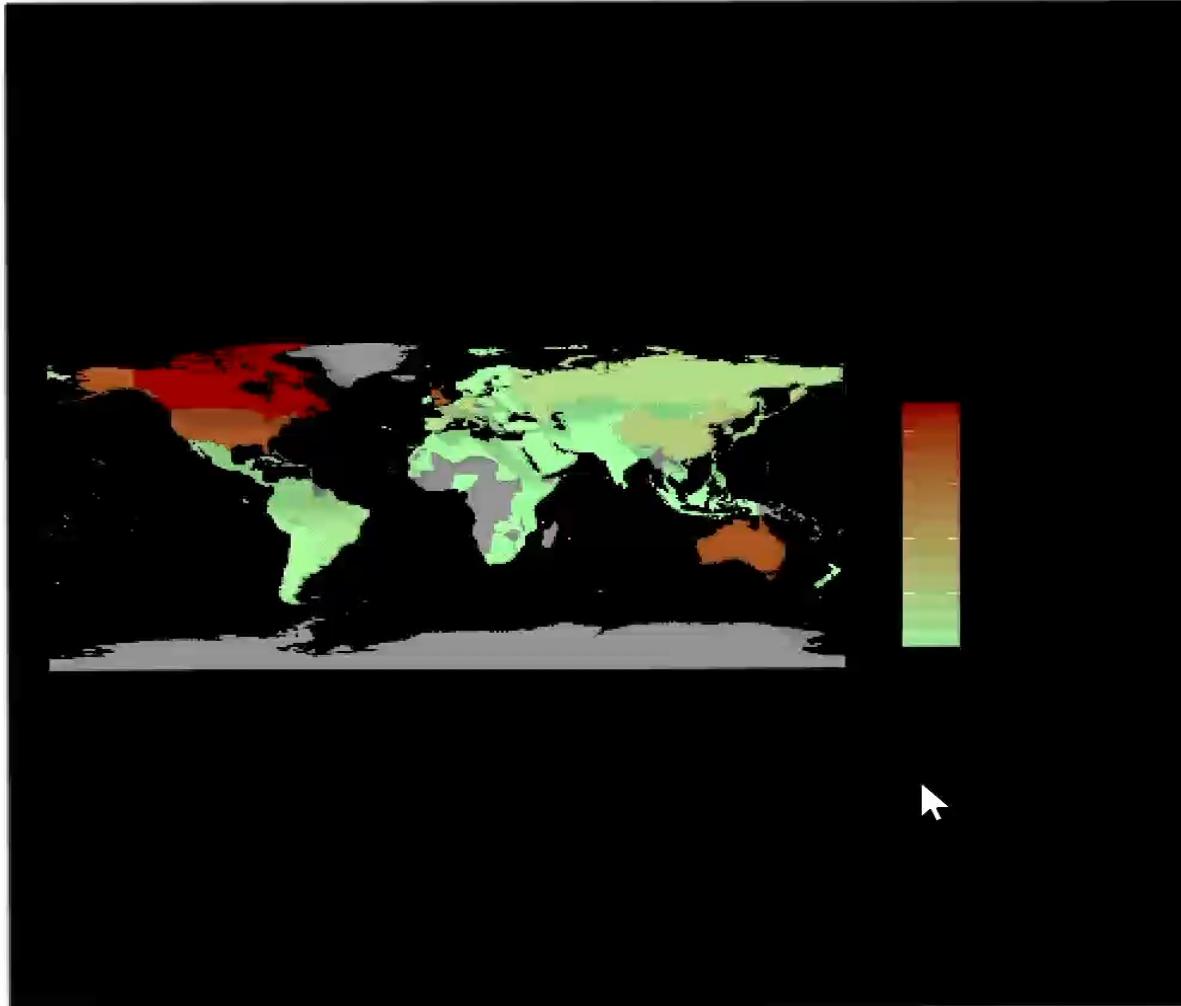
04

Geographic Analysis

WANG Hanlin

Examine the total number of games available across different countries and languages to understand the geographical distribution and linguistic reach of the gaming industry.





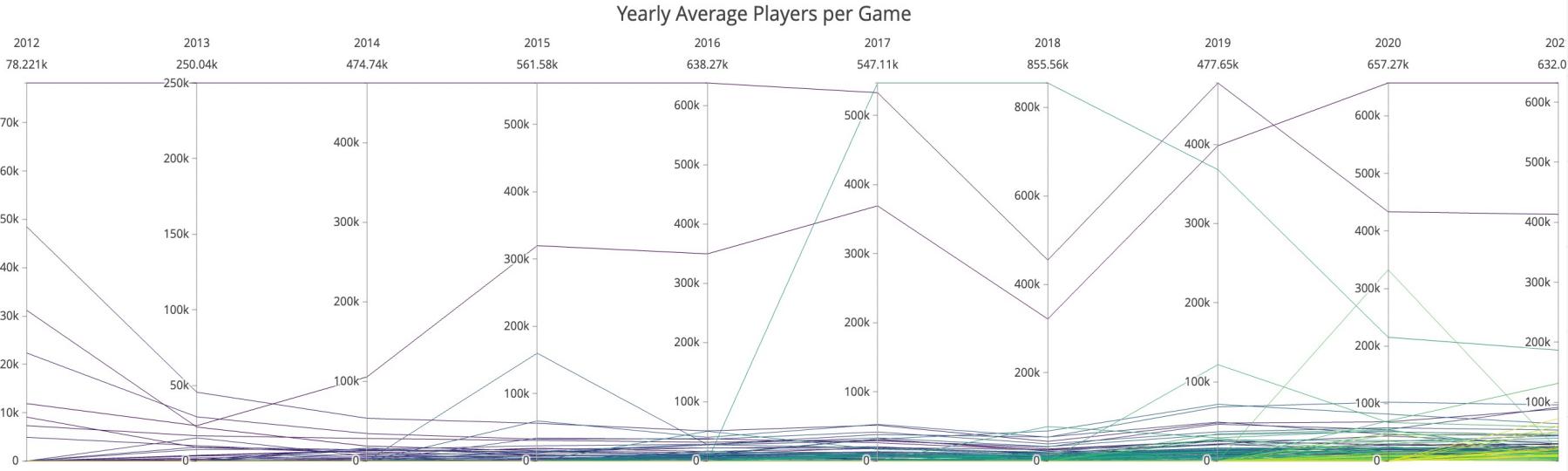
05

Player Analysis

WANG Hanlin

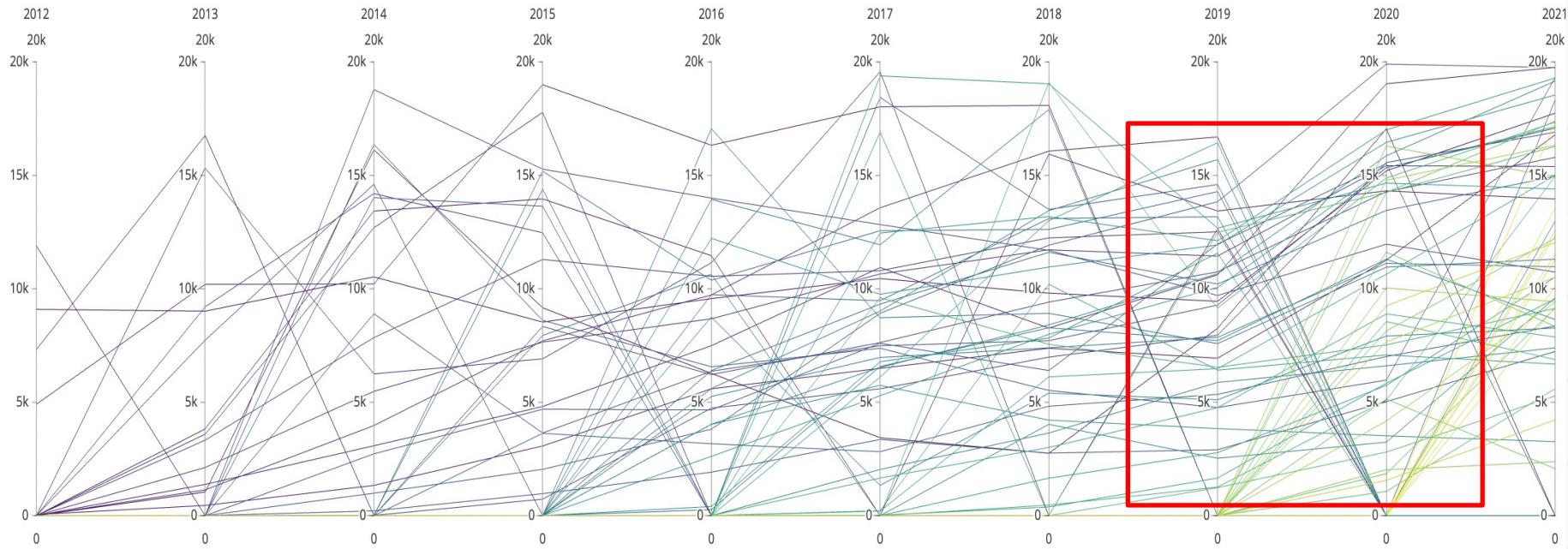


Analyse the consistency of player engagement across games over time to identify potential patterns or anomalies in player behaviour and correlate these trends with external events or game releases.



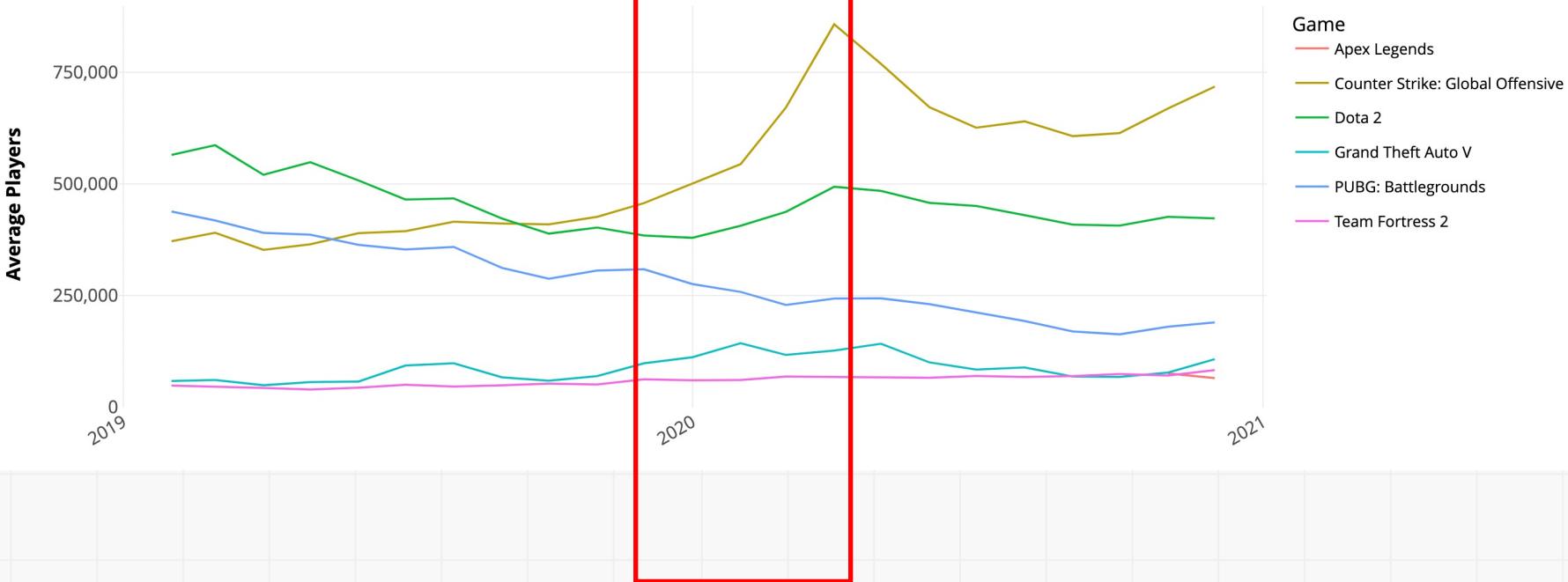


Yearly Average Players per Game (10k to 20k range)



Covid Lockdown Period

Average Players By Month



06

Marketing Analysis

WANG Hanlin

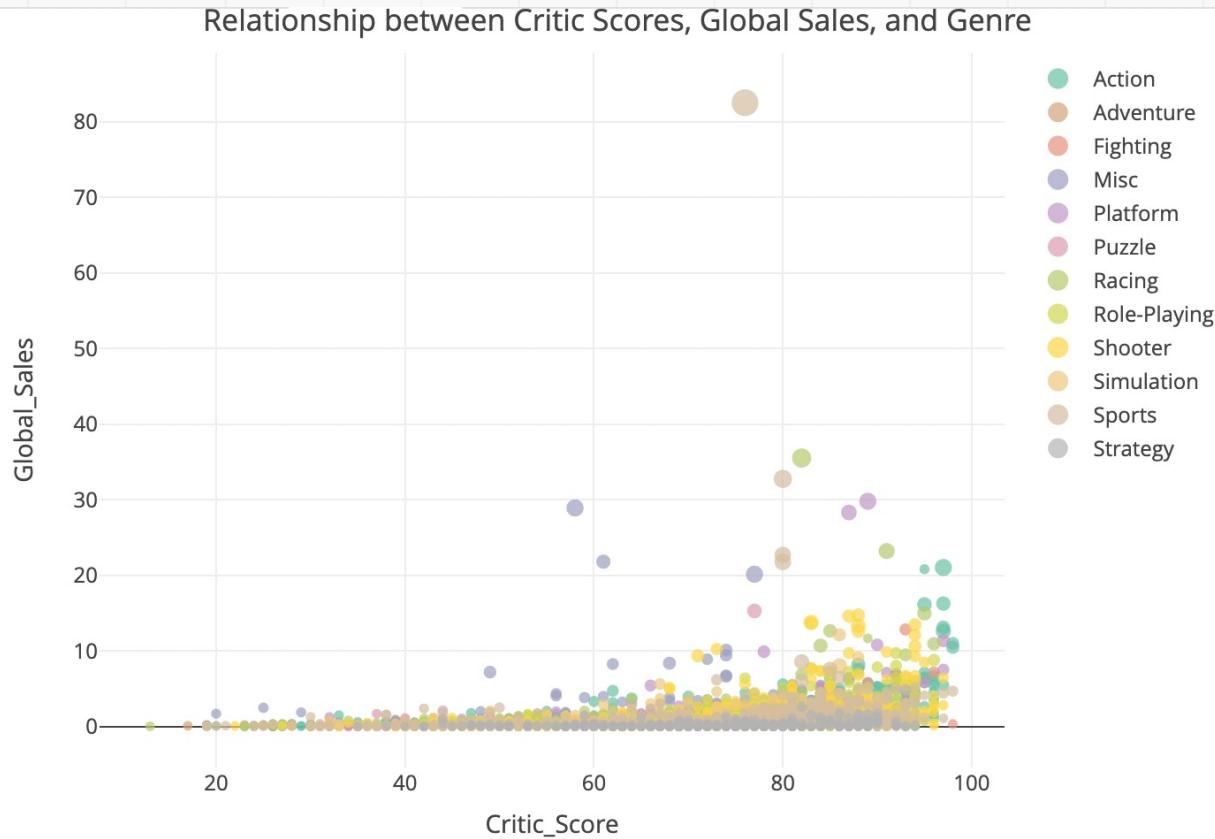


1. How does the relationship between market sales and critical ratings of game genres reveal the interplay between game reviews and commercial success?

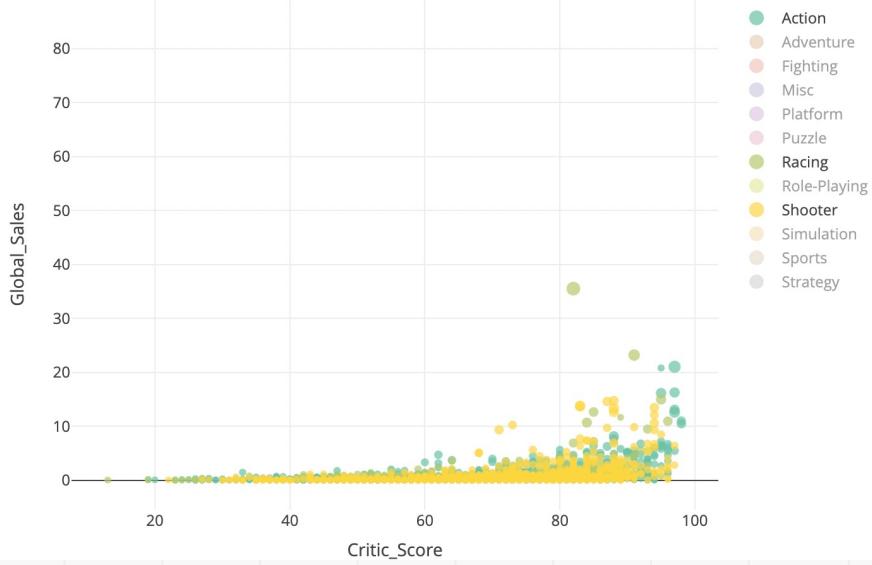




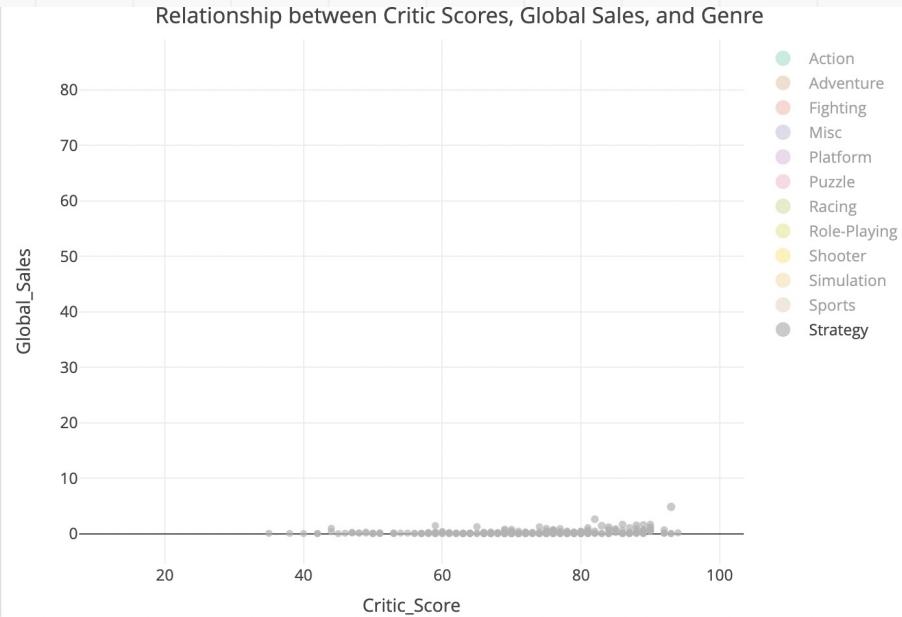
2. Evaluate how critic scores correlate with global sales across various game genres to understand the extent to which critical acclaim influences commercial success in the video game industry?



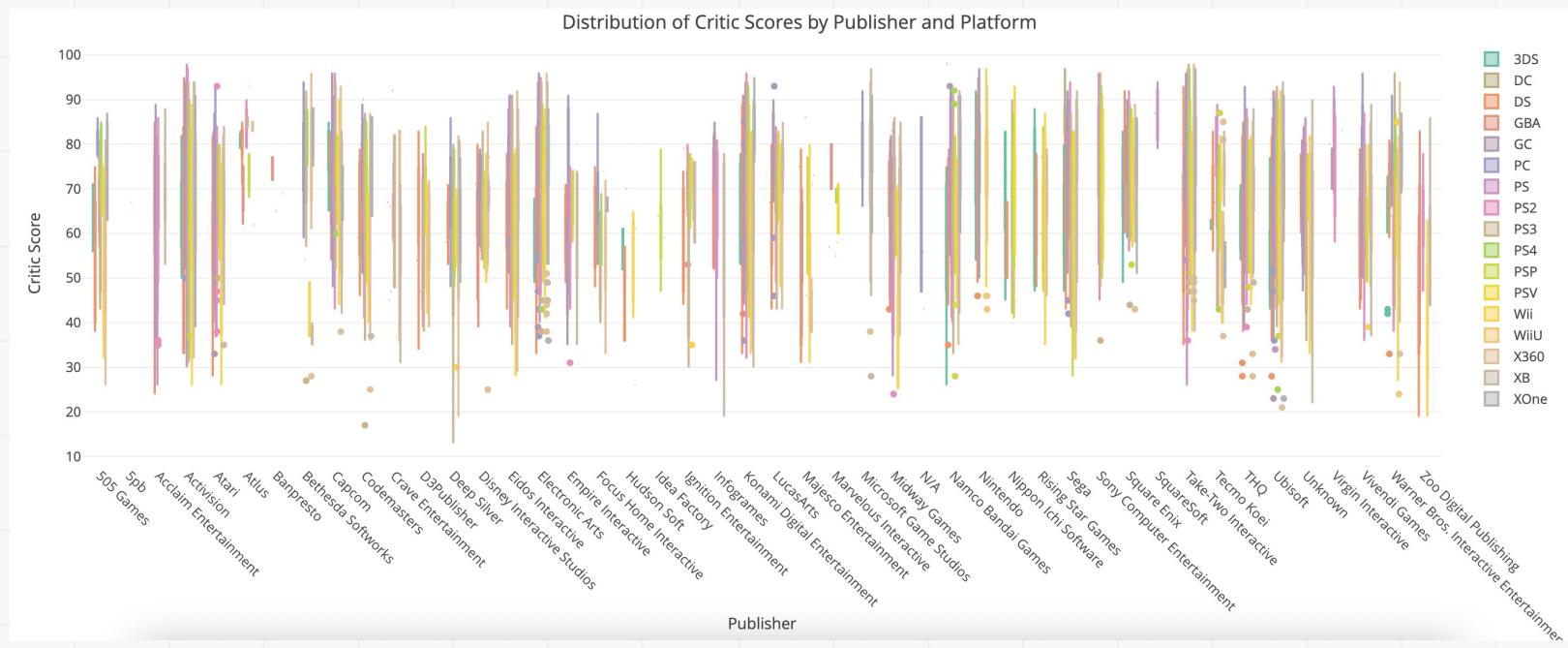
Relationship between Critic Scores, Global Sales, and Genre



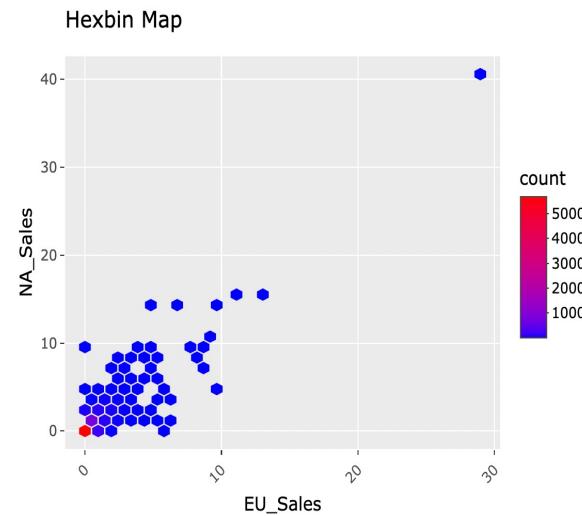
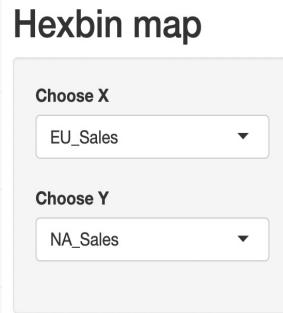
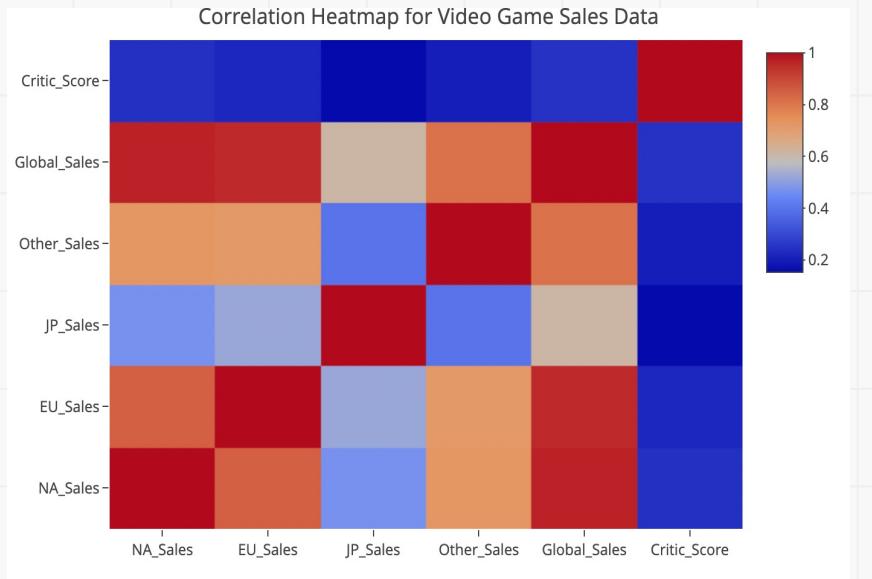
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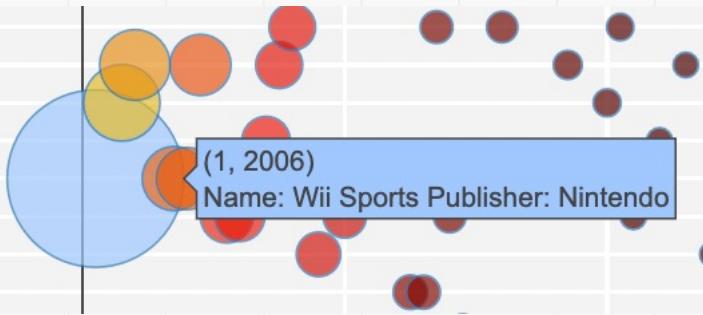
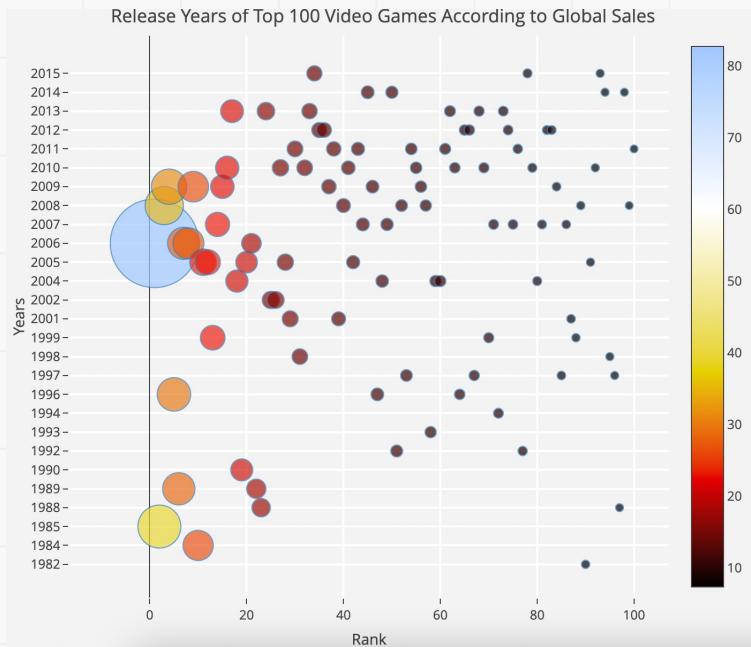
3. Analyze how game review scores vary by publisher and gaming console to see if some are consistently rated higher than others.



4. What correlation exists between sales figures in different regions and between these sales figures and critical ratings, and how does this affect the development of global market strategies?



Look at the global sales of the top 100 video games to see which years had the best-selling games.

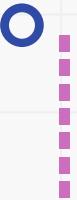


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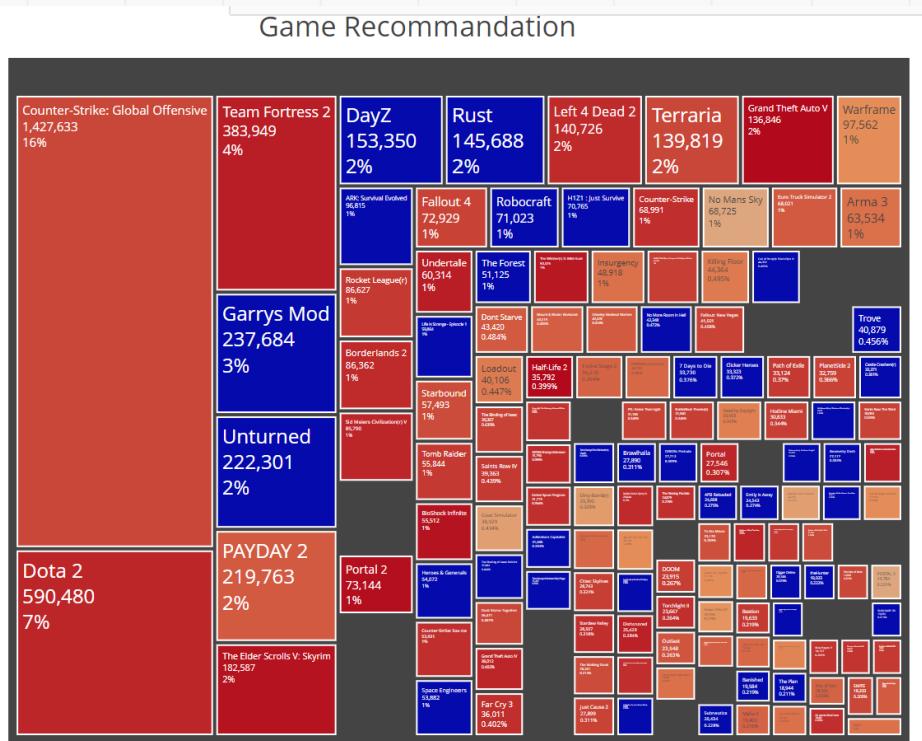
Games Rating

YE Yujun





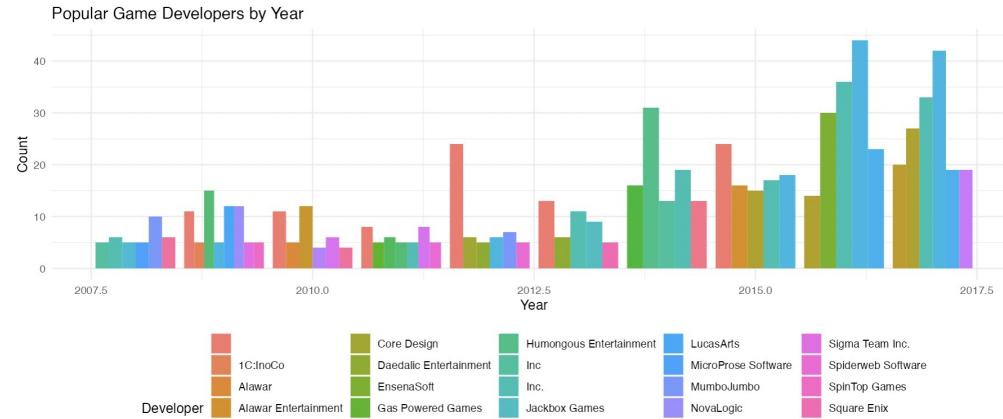
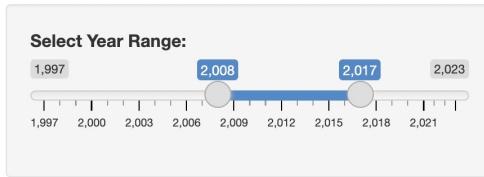
Which games have the highest number of recommendations?



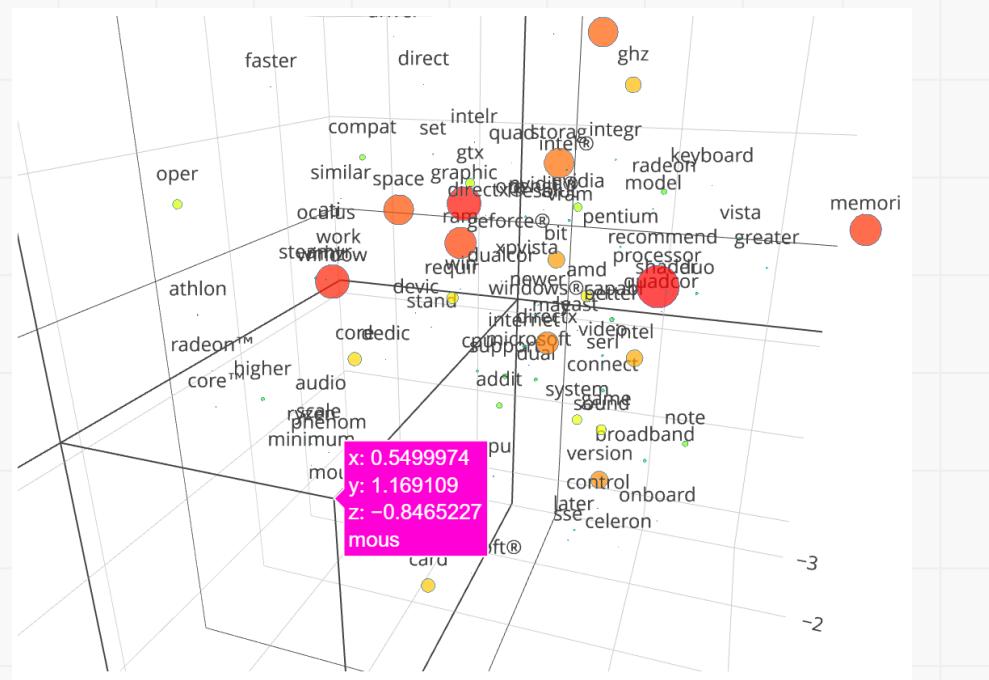
We want to know which games have the highest number of recommendations. This plot is a tree map that showing the number of players of different video games and their relative proportions. Each game's block size represents the size of its player base, which can be perceived by the area of the block.

Which game developers' titles have been the most popular over the past few years, and how do these trends reflect the changing competitive landscape within the industry?

Popular Game Developers by Year



Word-Galaxy



Word-Cloud

game

challenge person
characters based tumbased
around monsters build
discover space different
using style try
elements unique
playernow friends
place platformer
mysterious challenging
every

world

shooter way
space fight
puzzle life
evil use

simulator online gameplay story like first players explore war new help

roguelike dark arcade strategy just

simple solve fantasy collect classic

best escape horror save powerful become

must take rpg

action adventure can levels full

city inspired

will find experience

battle one puzzles survival many weapons defeat

control level choose team

08

Conclusion

YE Yujun



Conclusion

