

# Video Game

Genre Recommendation

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# Overview



Stakeholders: Games Developer and Game Investors



Goal: Suggest 5 genres to incorporate in new video games

Model Performance: 77.08%

Best Genres: Adventure, RPG, Indie Puzzle and Strategy

## **Business Understanding**

High Demand: **26%** increase in demand **2019 - 2021**

- Projected to **increase**



Low Success Rate: **20%** of Video **Success Rate**

- **34** Games produced daily (Steam)

Reliance: **145 B** Gaming vs **42 B** Box Office

- Most Lucrative Industry



# Data Understanding



## 1. Source

**Kaggle**

16,598 different titles

## 2. Source

**Backloggd**

60,000 different title

*Target Feature:  
Global\_Sales*

*Target Feature:  
Rating, Genres*

# **Method**

1. Clean both datasets (Duplicates, Missing Values)
2. Combine both dataset into one
3. Mark Games as profitable
4. Convert to Genres list to binary markers
5. Resolve Class Imbalance
6. Train - Test model

**1st Dataset**

**Second Dataset**

**Third Dataset**

**Final Dataset**

**Source 1: Kaggle**



16,598 titles

Feature: Global\_Sales



**Combined**

7593 Overlapped Titles

**Source 2: Backloggd**



60,000 titles

Features: Genres

**Cleaned**

4488 Unique Titles

24 Genre Features

## Metric

Accuracy:

How well the model predict success  
based off genres

Global Sale:

1.0 or 1 million = Profit  
for most games

100,000 = Profit for  
most Indie games



# Results

| Rank | Experienced Developers | Indie Developers   |
|------|------------------------|--------------------|
| 1    | <u>Adventure</u>       | <u>RPG</u>         |
| 2    | <u>RPG</u>             | <u>Platformers</u> |
| 3    | <b>Simulators</b>      | <u>Adventure</u>   |
| 4    | <b>Puzzle</b>          | <b>Strategy</b>    |
| 5    | <u>Platform</u>        | <b>Arcade</b>      |



## Recommendations



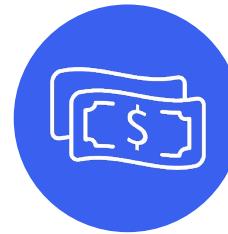
### ***Experienced Developer***

Continue with popular genres:  
Experiment with Simulator and  
Puzzle genres



### ***Indie Developers***

*Safe Genres: Adventure, RPG  
and Platform*  
*Experiment with Strategy and  
Arcade Genres*



### ***Investors***

*Invest in Indie  
Developers and games*



## Recommendations

Safe Options: Adventure, RPG, Platformer

Potential Good Genres: Puzzle, Simulator, Shooter

Avoid: Pinball, MOBA

## Next Step

### More Games

- Limited by matches

### More features

- Developer, budget, platform

### Identify Trends:

- Audience genres trends - MOBA, Arcade, etc.



## Questions?

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Github: <https://github.com/Tommyphung1>

Notebook: <https://github.com/Tommyphung1/Project>



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# *Thanks !*

