Microsoft Enters the Movie Business

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(2022, A Streaming Odyssey)

Overview

- Digital distribution became dominant in 2020 ([MPA](#) pg 7.)
- Microsoft is creating a new streaming platform
- There's tons of available movie data (IMDB, Rotten Tomatoes, etc...)
- How should we use data to steer our platform and film production?

Understanding the problem

Endless Choices

- Which genre?
- Which directors?
- Which actors?
- Which writers?
- Which budget?

Which things matter?

- What is profitable?
- How much do ratings matter?
- What should steer decision-making?

How is risk avoided?

- Filmmaking is a risk
- What are the big mistakes?
- Which things are least profitable?
- Should some writers and directors be avoided?

Objective:
Answer these questions with data.

Data

Data on over 100,000 films across three databases

Financial info on over 5000 films

Over 70000 IMDB reviews

Methods

Working with Data

- Data Cleaning and Processing using Python and Pandas
- Exploratory Data Analysis
- Integrating multiple databases (SQL and .TSV)
- Deriving higher-level metrics

Developing Insights

- Finding Notable Correlations
- Clarifying the picture of success
- Asking and Answering Questions
- Visualizing and communicating using Matplotlib and Seaborn

Findings

Profitability of Films

Movie Profit (USD) (100m)
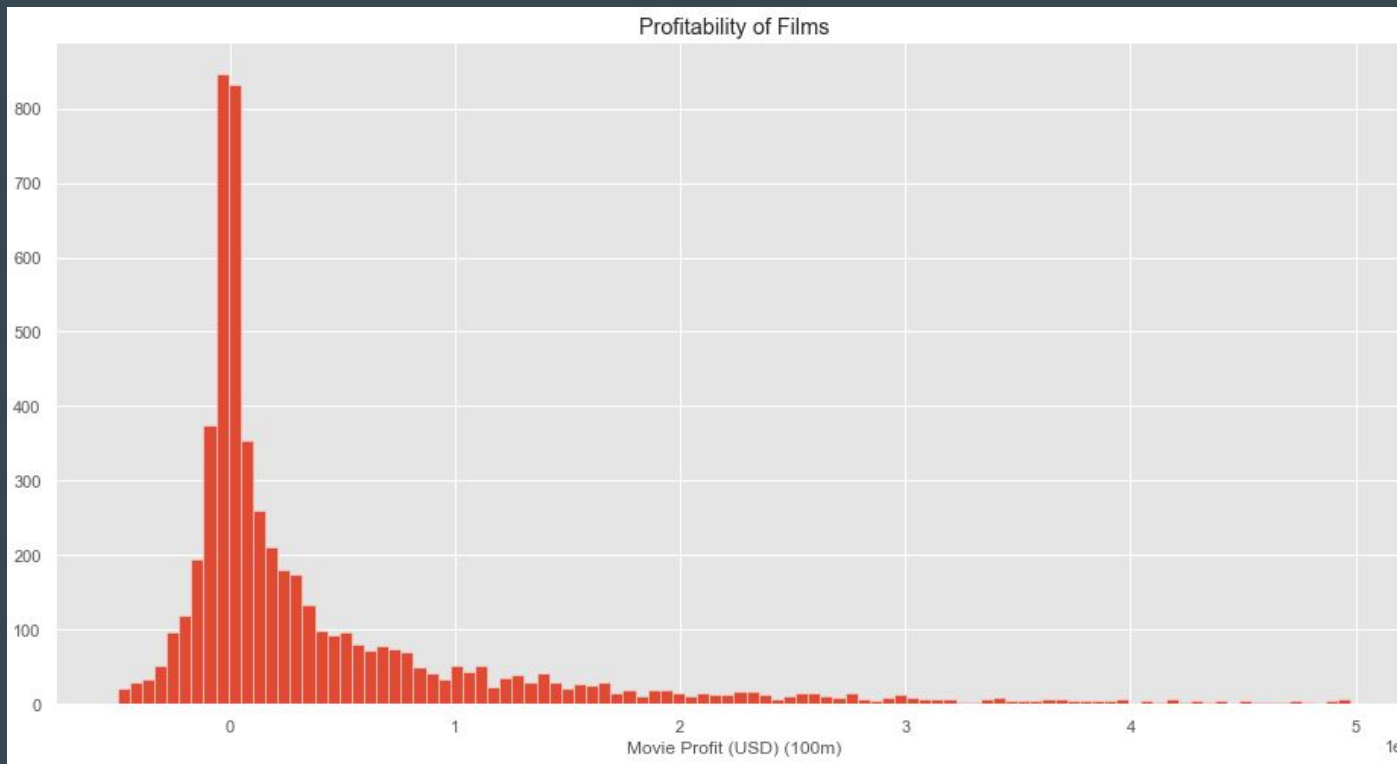
Many, many films lose money. Smash Successes are
exponentially profitable. Quality matters and is rewarded.

Findings

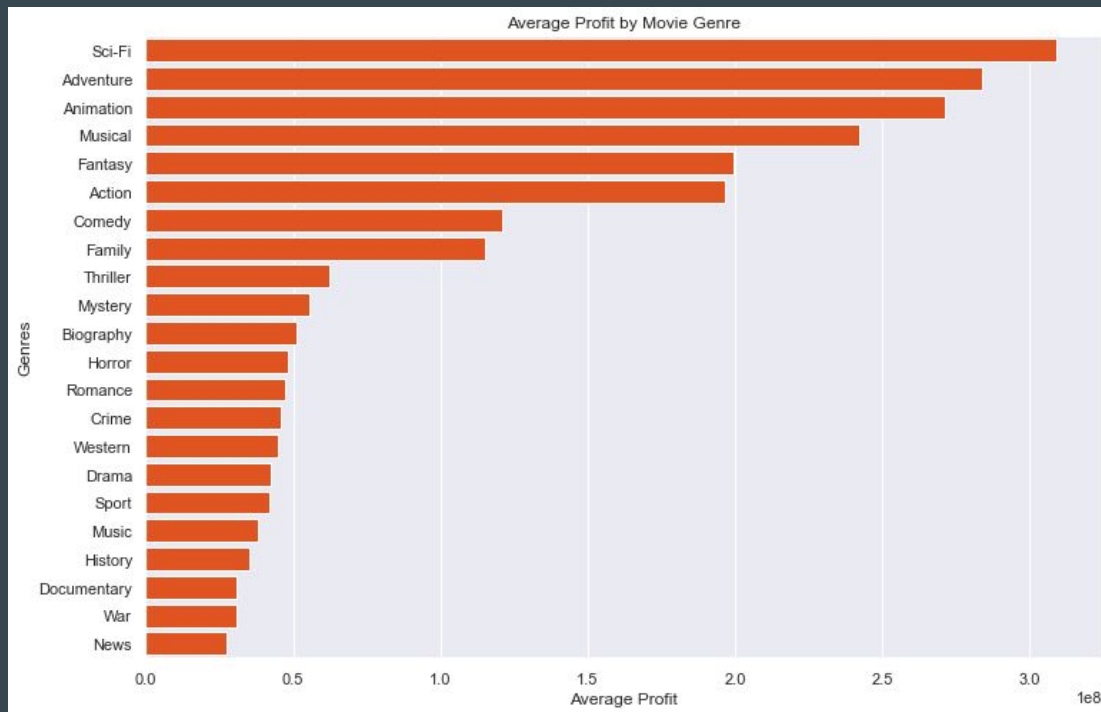Profitability by Release Date, Colored by IMDB Rating
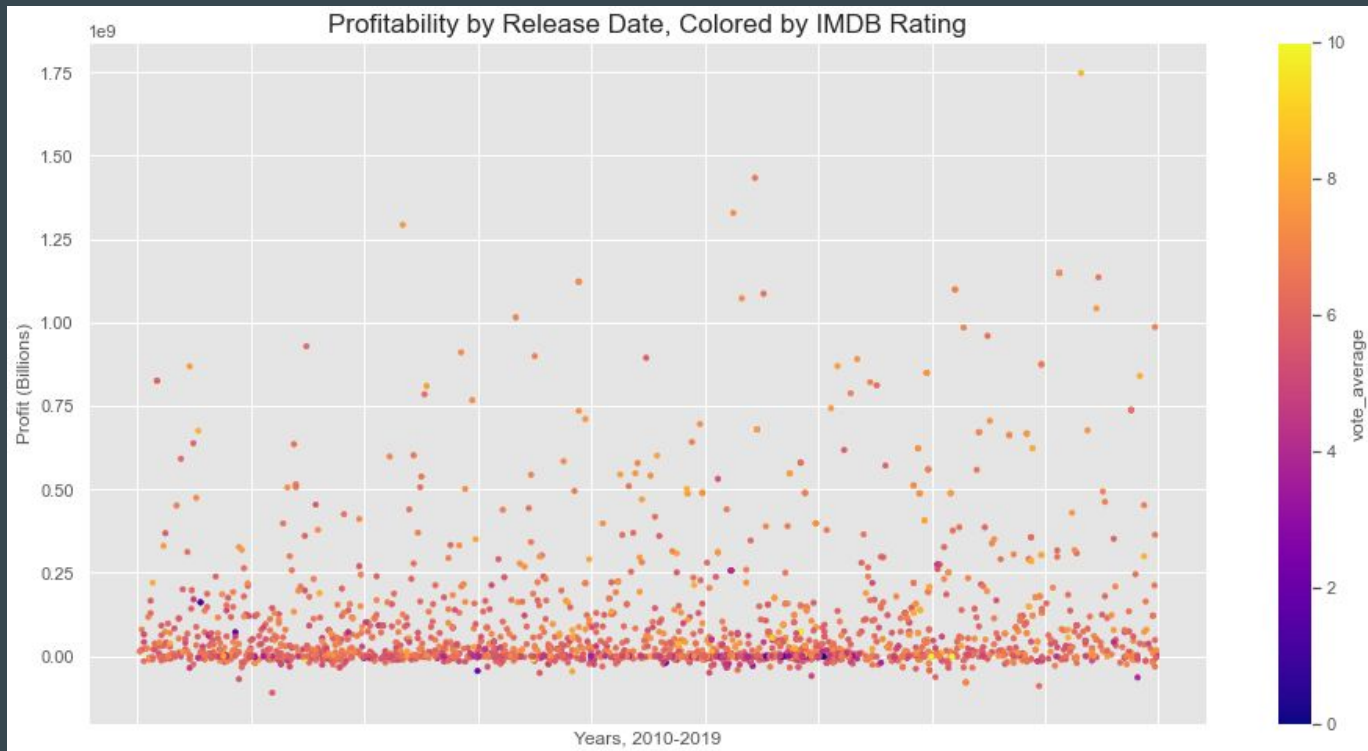
Films are not getting more profitable
(0.03 pearson correlation)

Findings

Profit by Genre, by Year
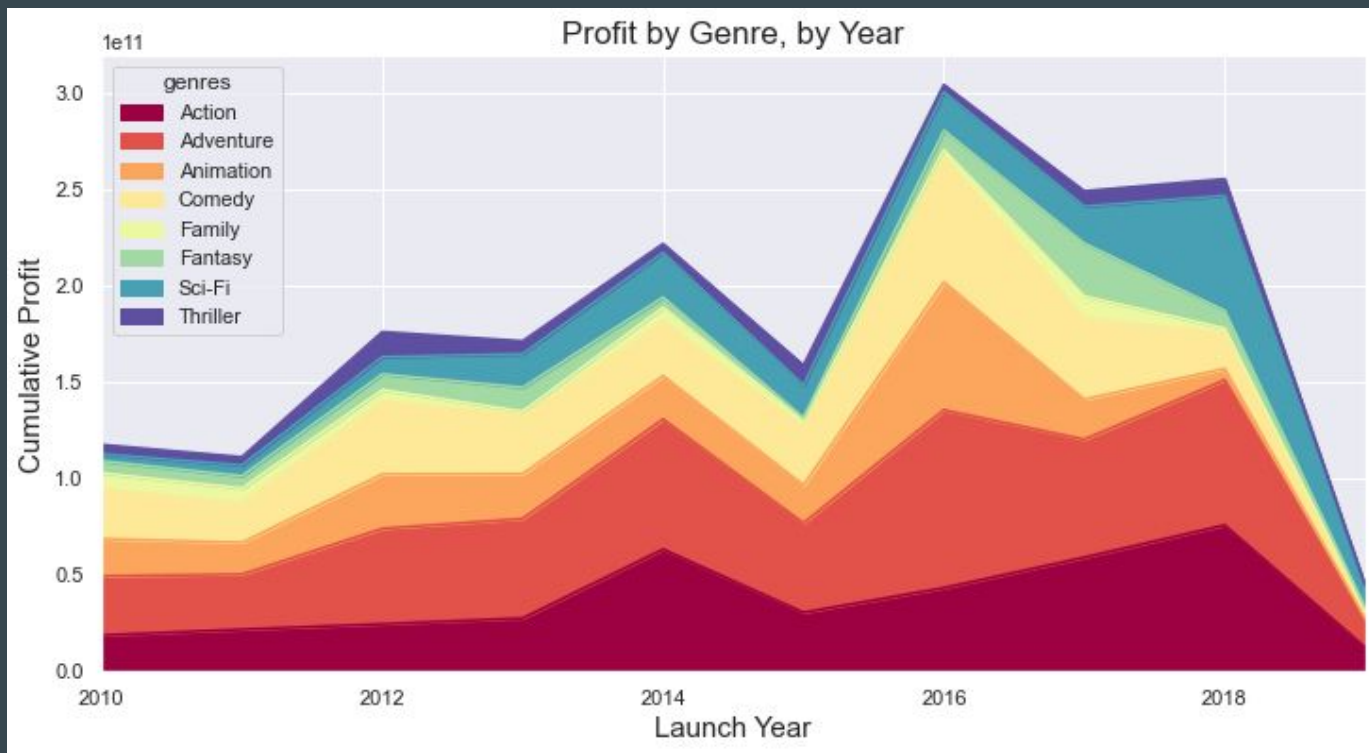
Science Fiction is a recently successful genre.
Action/Adventure has become a sort of bedrock.

Findings

Average Profit by Movie Genre

Science Fiction is the most profitable genre to create,
followed by adventure and animation.

Conclusions

Go Big	• Make fewer, higher-quality productions. The industry is carried by the runaway successes.
Quality Creators	• Seek out quality writers and directors. Work to avoid bad ones.
Consider all the factors	• Rating, runtime, and genre all impact profitability.
Pick Good Genres	• Make Science Fiction

Conclusions

Not all writers and directors are created equal. There is a huge difference between a good director and a bad one.

Higher production budgets tend to create more profitable films.

Don't try to make Shakespeare adaptations.

Future Analytics Work:

- Collect more data on production companies and collaboration networks
- Larger financial dataset
- More analysis of up-and-coming names, predictive analytics to predict career trajectories

Thank you! Questions?

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