



# Microsoft Film Production: Data Analysis & Strategy Recommendations

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# Summary

We found the best people to hire to make a movie based on how popular they are and how much money their movies make.

We can provide some good options to choose from for a few different categories. These categories are:

- Genres of movie to make
- Directors, actors, and actresses to hire based on ratings
- Directors, writers, actors, actresses, and movie release month based on profitability

# Outline

- Business Problem
- Data
- Methods
- Results
- Conclusions

# Business Problem

Microsoft is deciding how to make a movie. Part of the process is figuring out who to hire and when to release the movie. We used available movie data to see the best people to hire based on profits and what kind of movie is the most popular.

This project outlines the best decisions to make to maximize profits and movie ratings.

# Data

We used data from Box Office Mojo, IMDB, Rotten Tomatoes, TheMovieDB.org and, the-numbers.com. This data contains information that:

- Describes how popular movies are
- The people who worked on the movies
- Their professions
- Movie genre
- Release date
- Monetary info like budget and gross sales.

# Methods

- First, we combined existing data into one dataframe
- Then, we dropped some columns that we didn't need
- Next, we cleaned the data by reformatting some columns like the budget and gross columns to remove commas, dollar signs, and other delimiters.
- Finally, we each made our own barplots to visualize the data

# Methods Cont.

Some visualizations that we looked at are:

- Top movies by profit
- Most popular genres
- Profitable Studios
- Profitable genres, writers, directors, actors and actresses, and release month based on profit
- Popularity of directors, actors, and actresses

# Recommendations

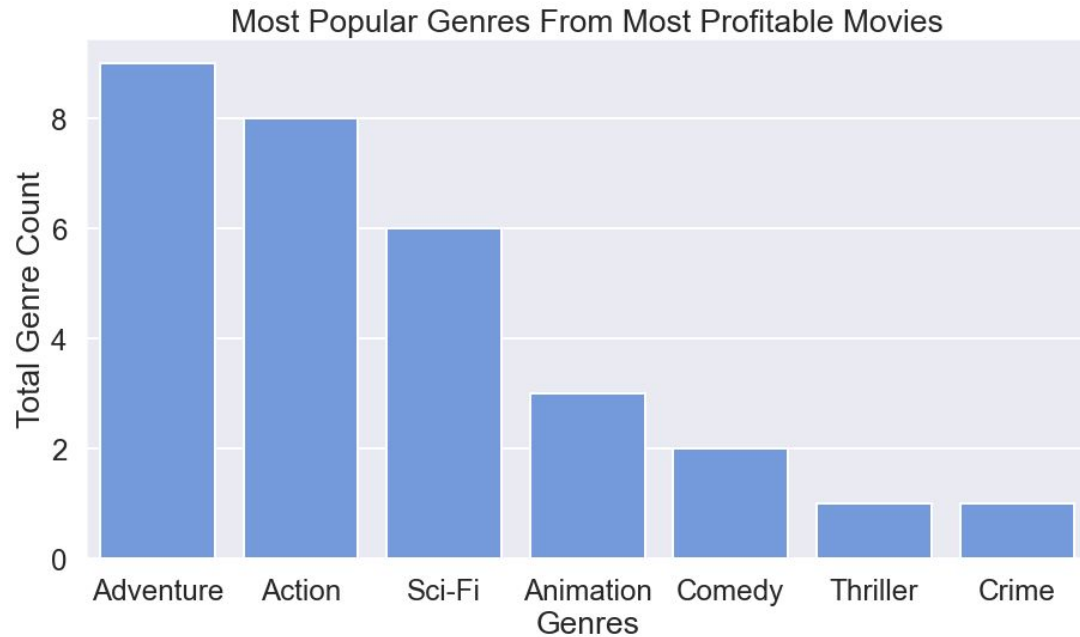
- We would suggest picking a genre of movie to make based on what is popular.
- Then, pick from a list of directors and actors who are popular.
- Next, pick some directors, writers, and actors and actresses who are profitable
- Finally, pick a release date based on the genre.



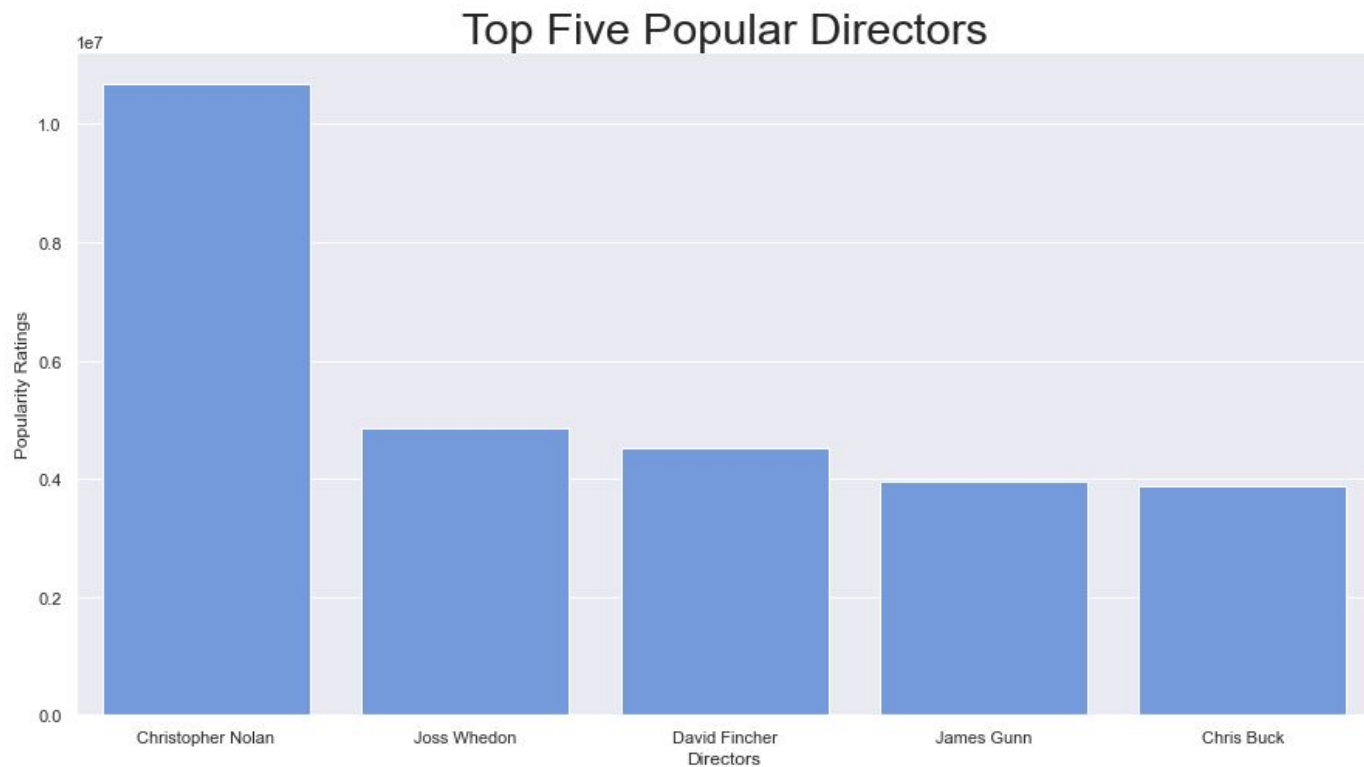
# Popular Genres

The popular movie genres are :

- Adventure
- Action
- Sci-Fi



# Popular Directors

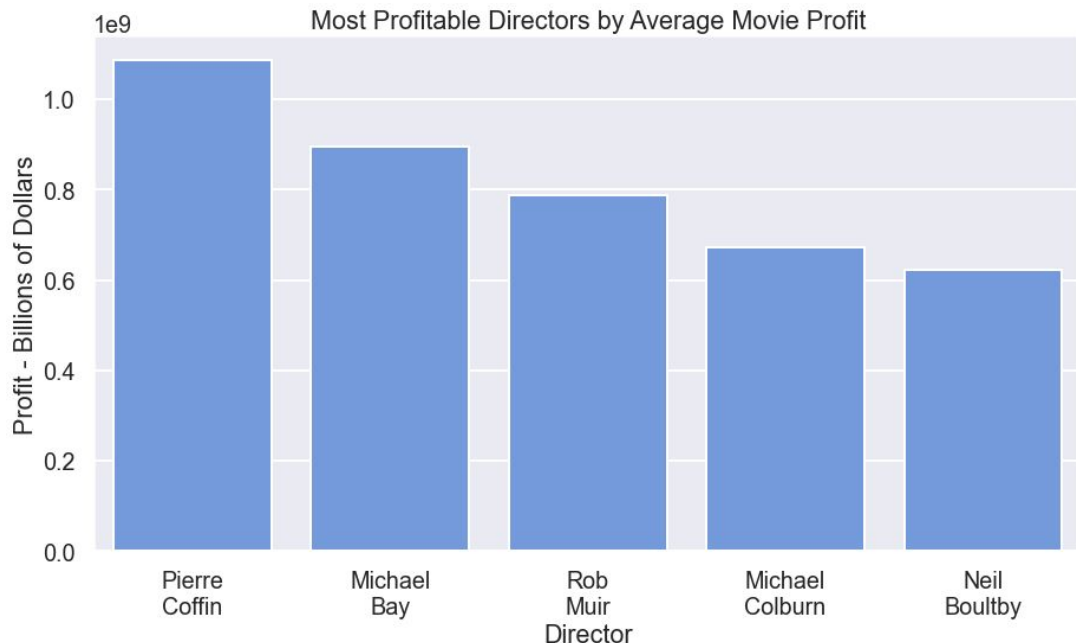


# Directors

The profitable directors are:

- Pierre Coffin
- Michael Bay
- Rob Muir
- Michael Colburn
- Neil Boultyby

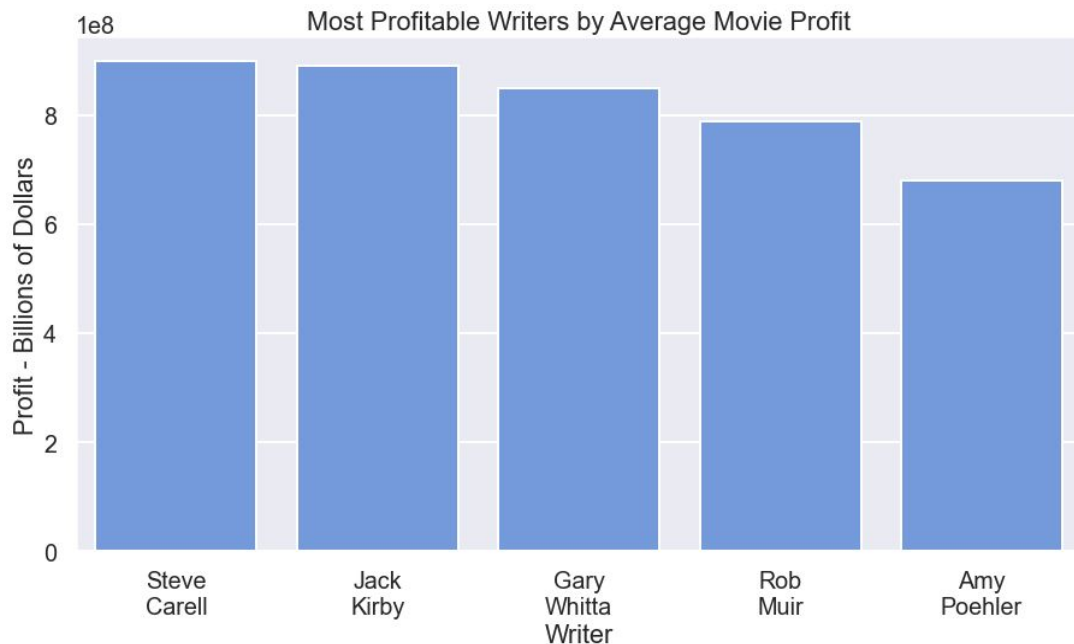
Choosing any of these would be a good idea



# Writers

The profitable writers are :

- Steve Carell
- Jack Kirby
- Gary Whitta
- Rob Muir
- Amy Poehler.



# Actors

The top five actors are:

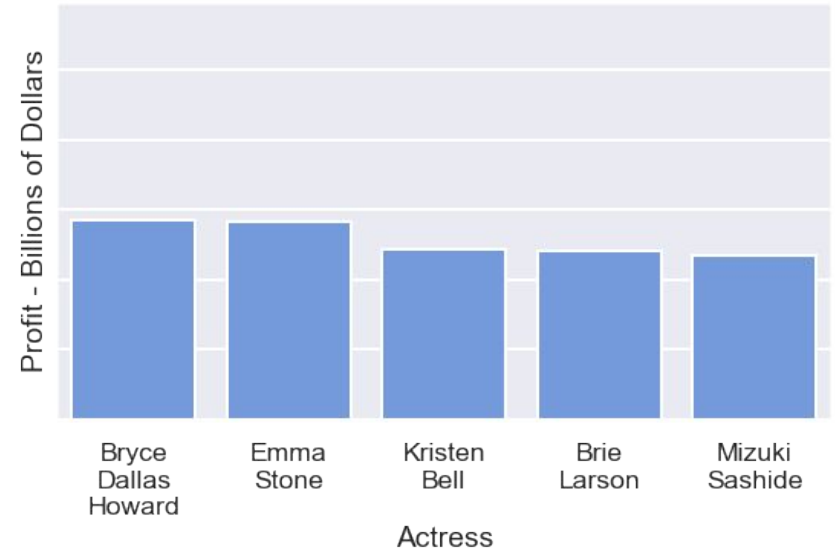
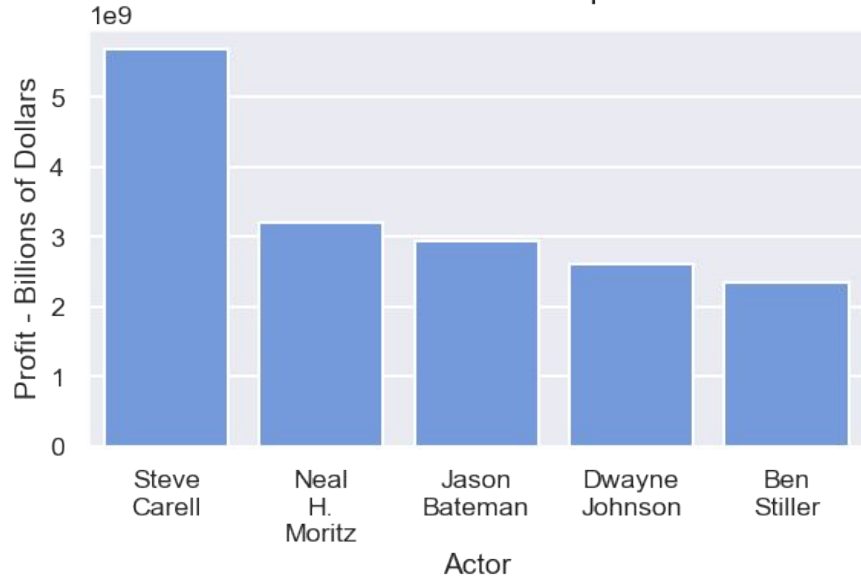
- Steve Carell
- Neal H
- Moritz
- Jason Bateman
- Dwayne Johnson
- Ben Stiller.

# Actresses

The top five actresses are:

- Bryce Dallas Howard
- Emma Stone
- Kristen Bell
- Brie Larson
- Mizuki Sashide.

Top Actors and Actresses by Total Movie Profit



# Conclusions

We recommend making an Adventure movie.

Hire someone like Leonardo DiCaprio and Idina Menzel to star in the movie.

Ask Christopher Nolan to direct the movie.

Hire writers Steve Carell and Jack Kirby.

Release the movie at the beginning of June.



# Thank You!

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