

MICROSOFT MOVIE ANALYSIS

Assisting Microsoft's venture into the movie industry

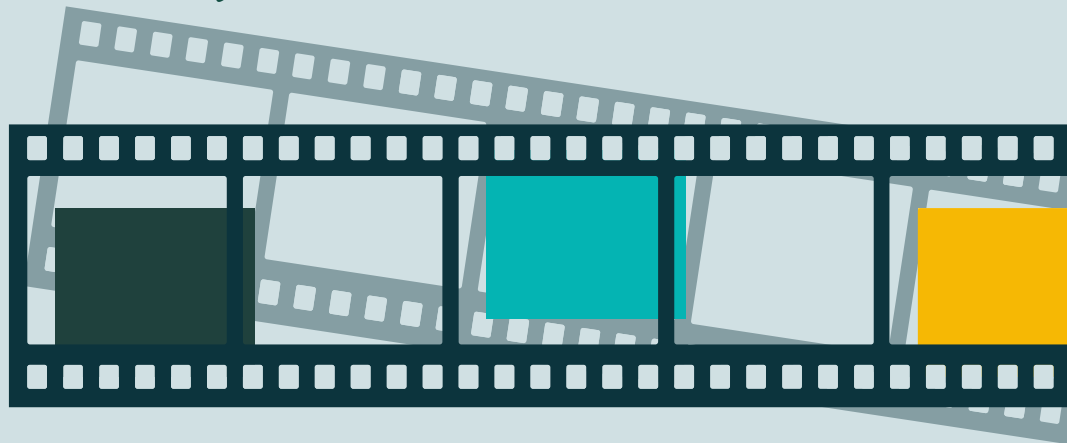
By Diane Tunncliffe



SUMMARY

I analyzed the highest-grossing movies and determined what makes them so successful. My analysis will help you make the best possible movie based on the following criteria:

a superhero movie released in April or May, **or** an animated musical movie released in June or November, with an appropriate budget and the right director or composer for the job.





OUTLINE:

01. BUSINESS PROBLEM

I explain the task and the approach.

02. THE DATA

I introduce data used in this analysis.

03. THE METHOD

I show how data was prepared and analyzed.

04. THE RESULTS

I share the visualizations and findings.

05. THE CONCLUSION

I propose recommendations.

BUSINESS PROBLEM

SO, YOU WANT TO MAKE A MOVIE.

You want to break into the multi-billion dollar movie industry, but you don't know where to begin.

I analyzed the past ten years of movie data to help you make the highest-grossing movie possible.

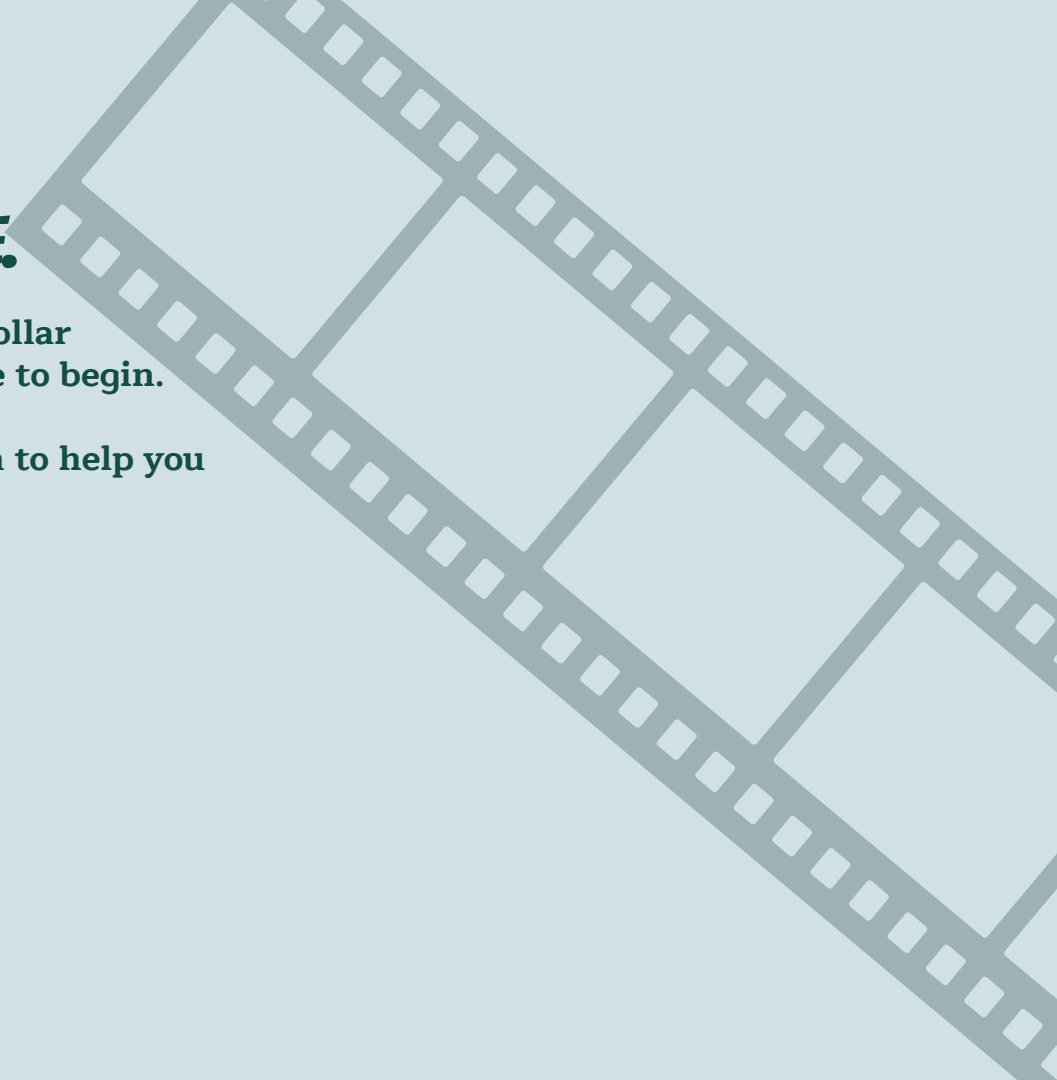
I have based my analysis on four factors:

Movie Type

Release Month

Production Budget

Additional Attributes: People



THE DATA

OpusData Movie Data

A free dataset for academic use. 1,900 movies from 2006-2018.



Web-scraped Data from The-Numbers.com

User-generated report of 100 top-grossing movies per year, 2010-2020.



The Movie Database API

System for acquiring data on any of the 586,416 movies in TMDb database.



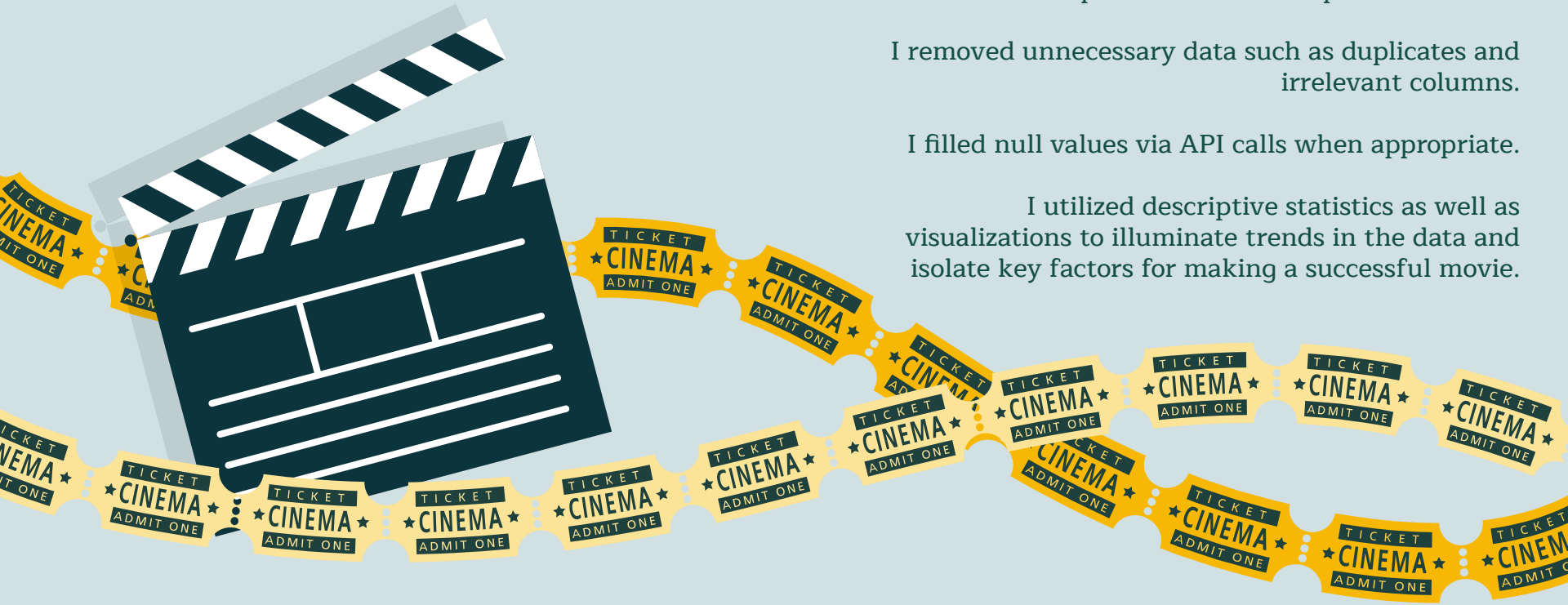
THE METHOD

I imported data from reputable sources.

I removed unnecessary data such as duplicates and irrelevant columns.

I filled null values via API calls when appropriate.

I utilized descriptive statistics as well as visualizations to illuminate trends in the data and isolate key factors for making a successful movie.

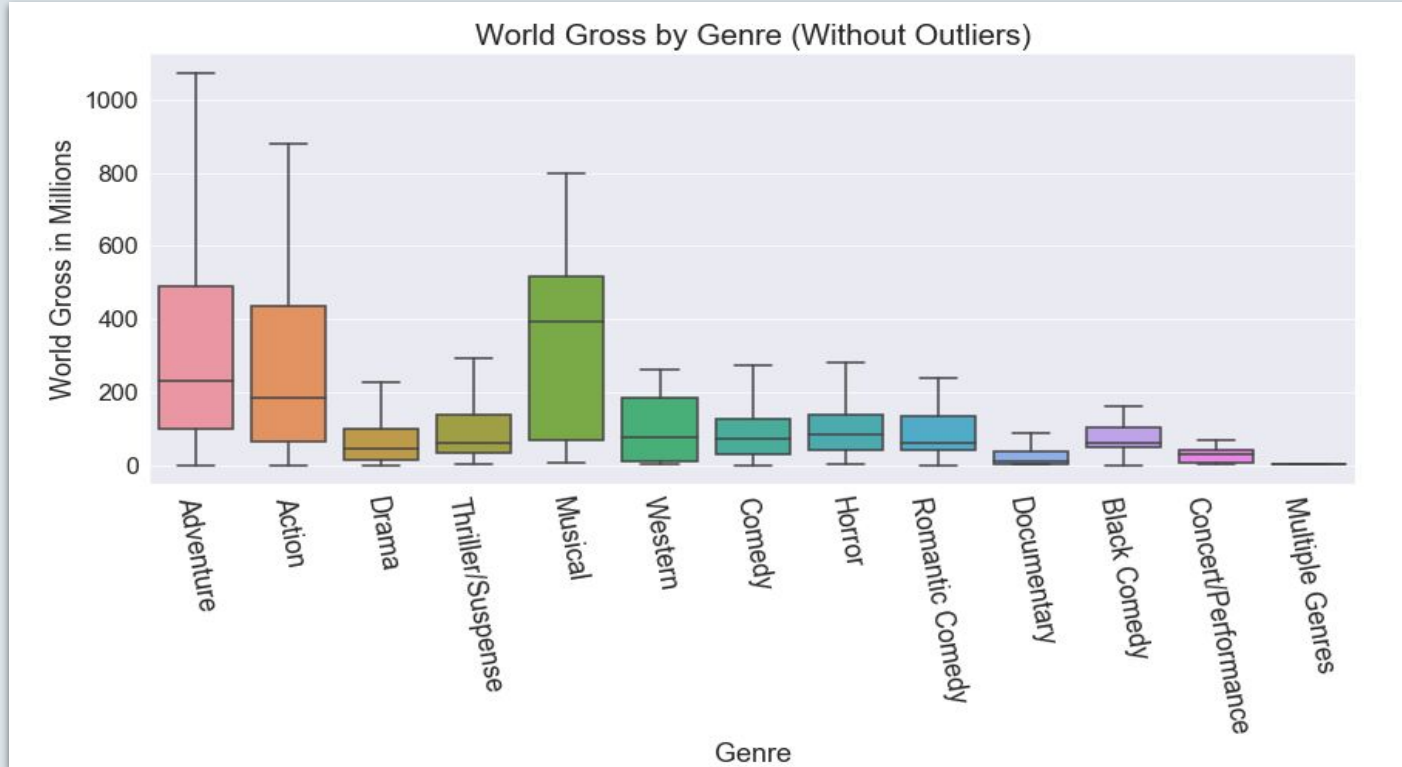




***MOVIE TYPE:
WHAT KINDS OF MOVIES
ARE CURRENTLY MOST
SUCCESSFUL?***

Analyzing genre, creative type,
and production method.

WORLD GROSS BY GENRE



TOP-GROSSING MUSICAL MOVIES



Top 5

musical movies, past 10 years



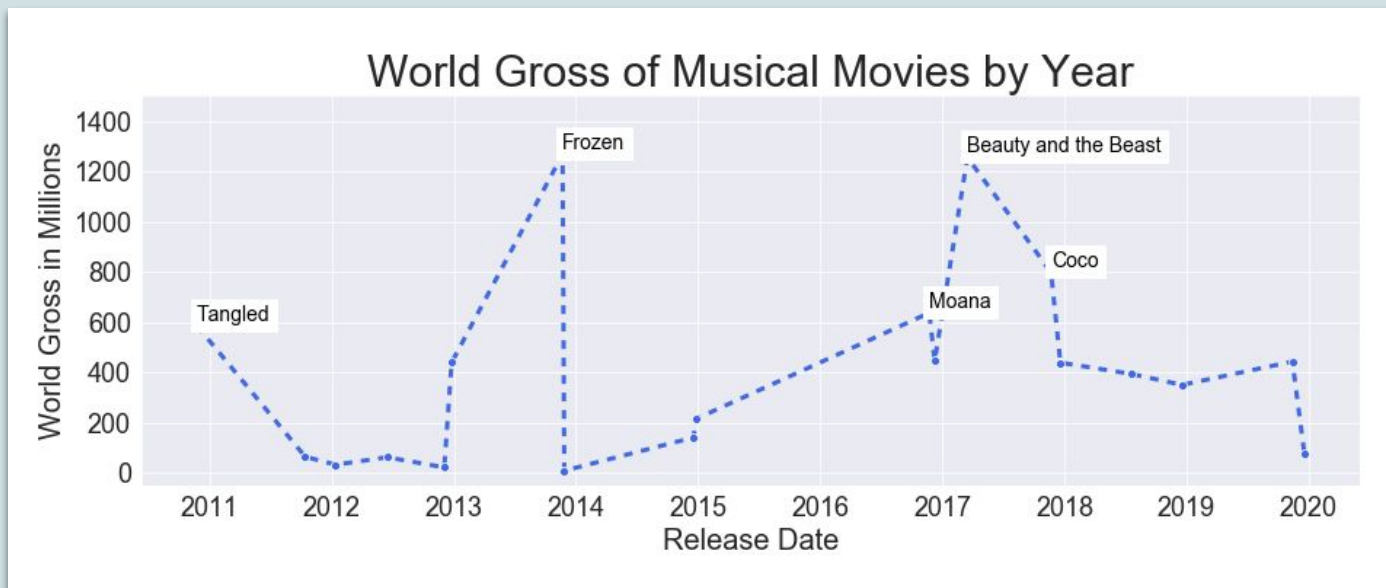
4 out of 5

were animated kids fiction

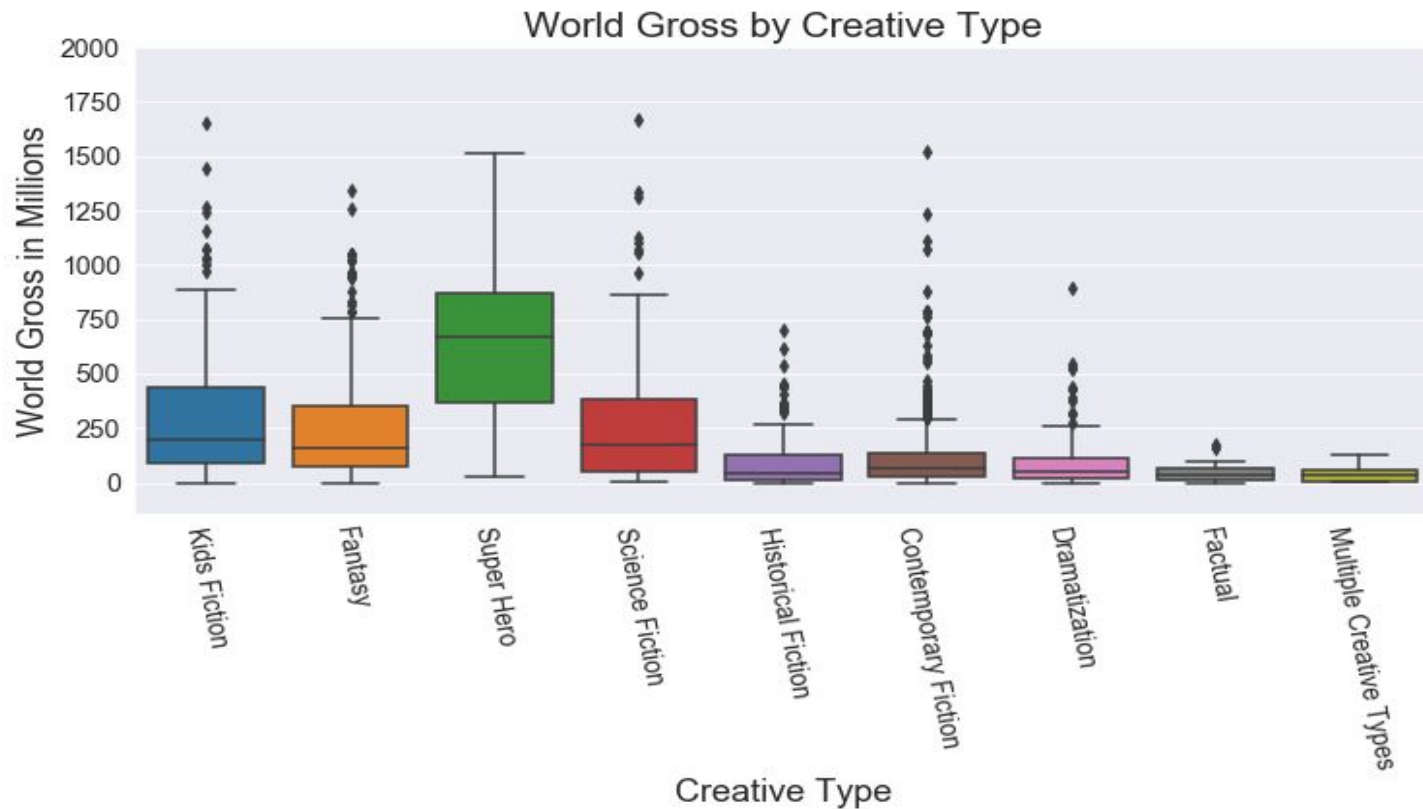


4 out of 5

were released in November



WORLD GROSS BY CREATIVE TYPE



TOP-GROSSING SUPER HERO MOVIES



Top 7

superhero movies, past 10 years



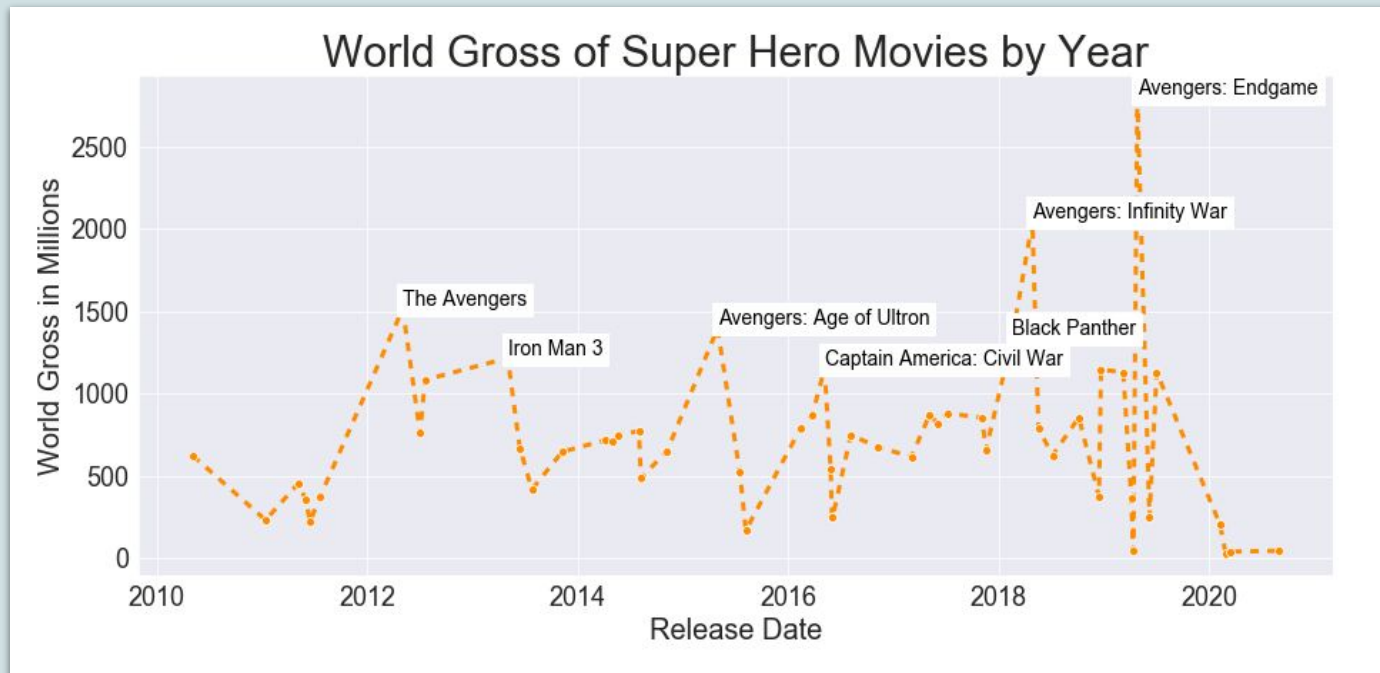
All 7

were Animated/Live Action



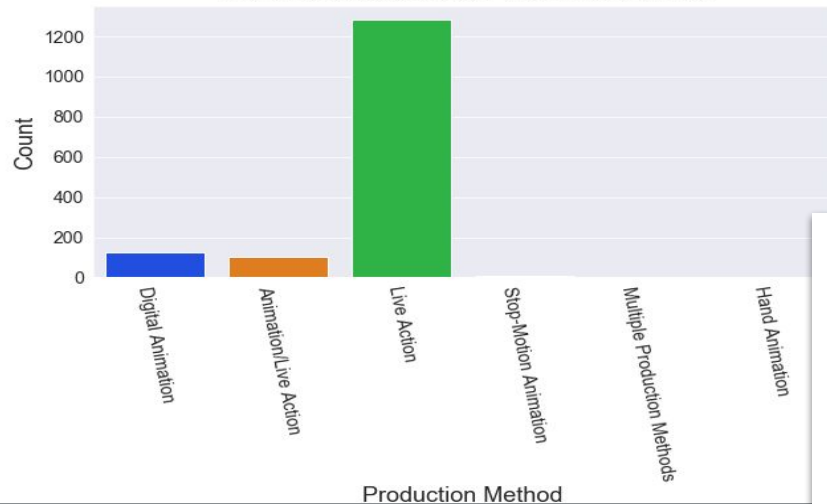
6 out of 7

were released in April or May

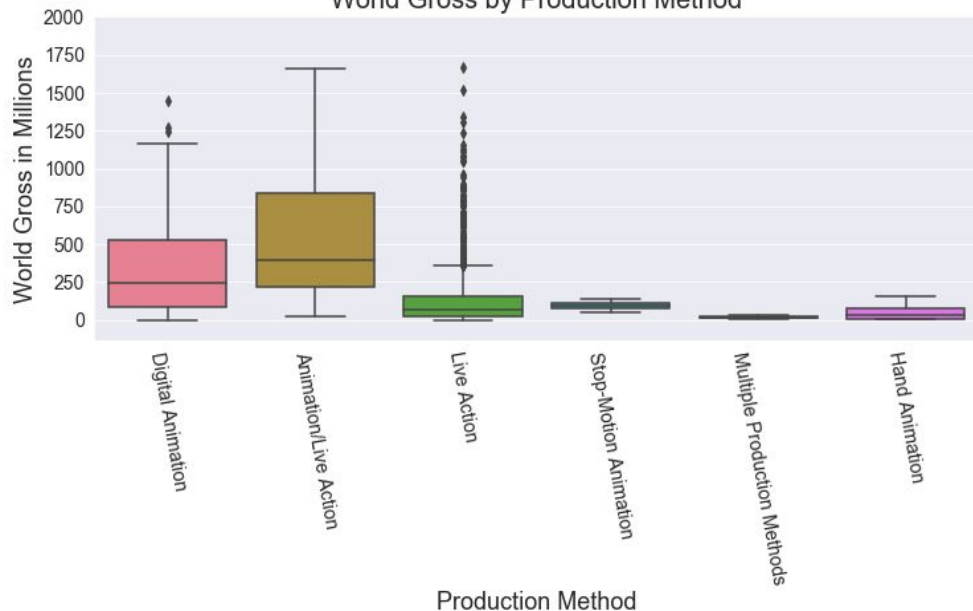


WORLD GROSS BY PRODUCTION METHOD

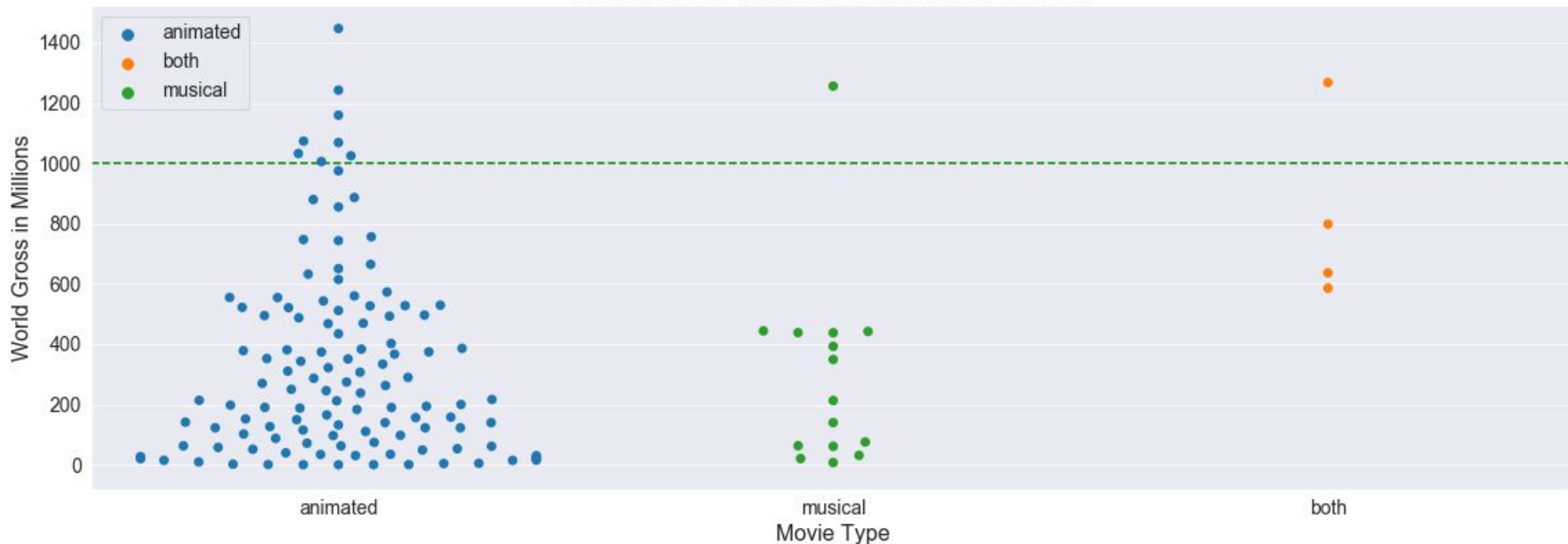
Number of Movies Per Production Method



World Gross by Production Method



World Gross for Animated/Musical Movies



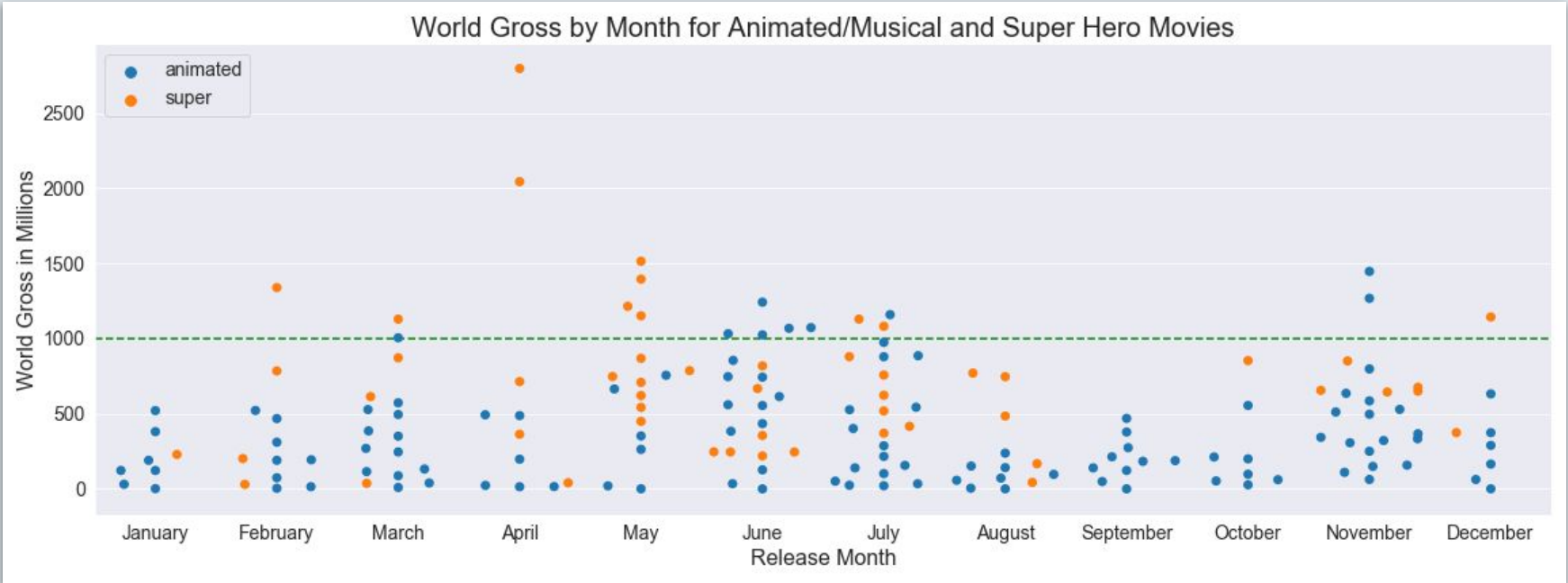
World Gross for Animated/Musical Movies. This visualization was part of the decision-making process for focusing on the broader category of animated movies with musical components, as opposed to simply musicals.

RELEASE MONTH

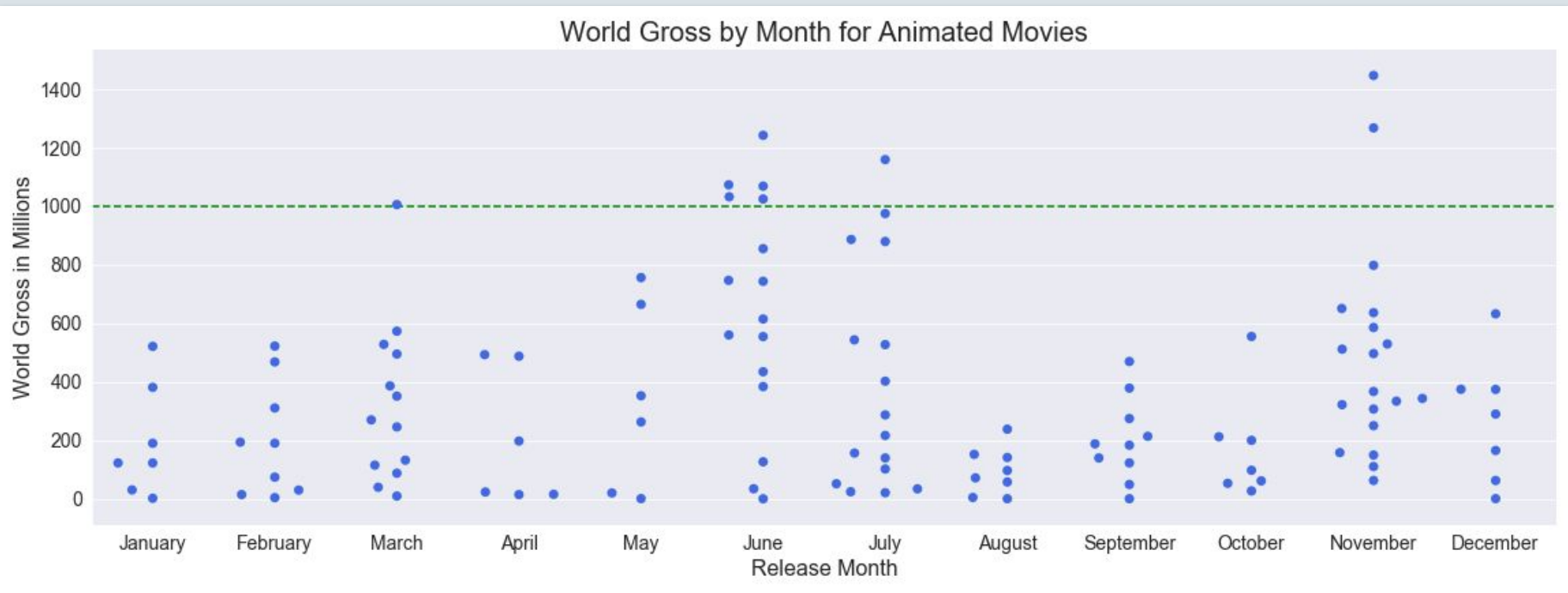
When is the best time of year to
release a movie?



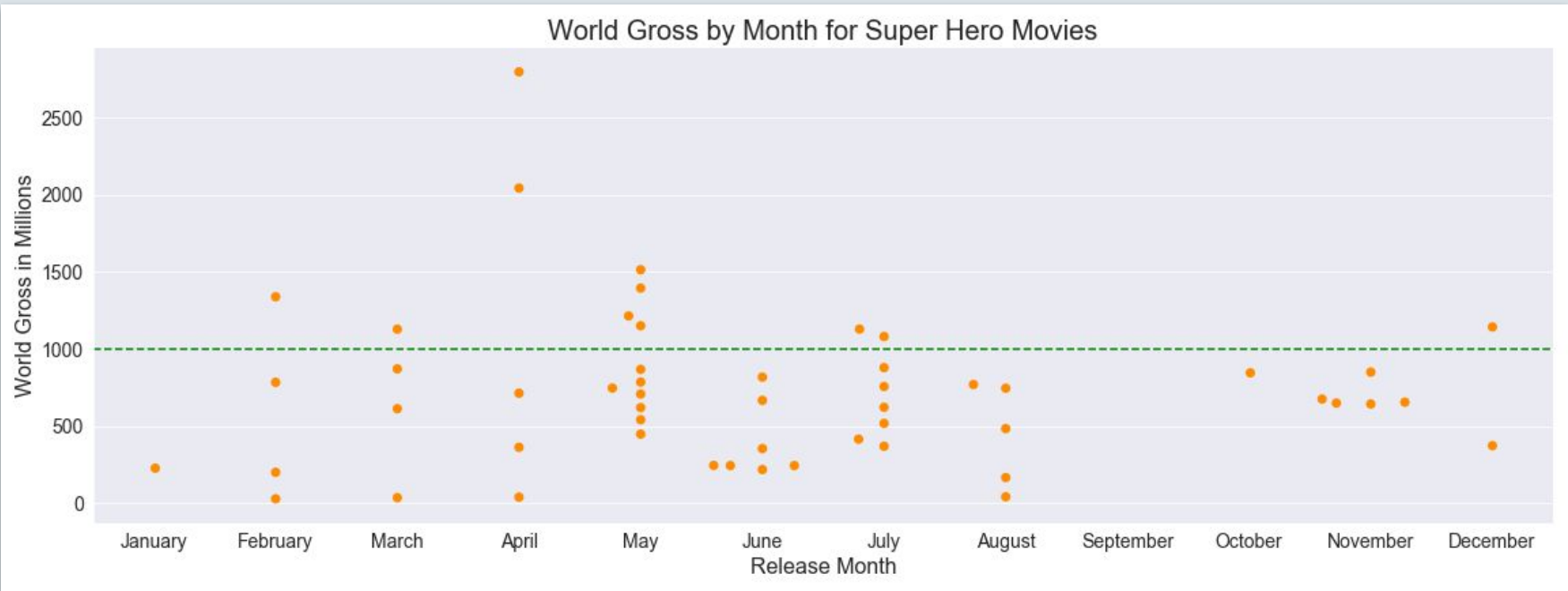
WORLD GROSS BY RELEASE MONTH



WORLD GROSS BY RELEASE MONTH FOR ANIMATED MOVIES



WORLD GROSS BY RELEASE MONTH FOR SUPER HERO MOVIES



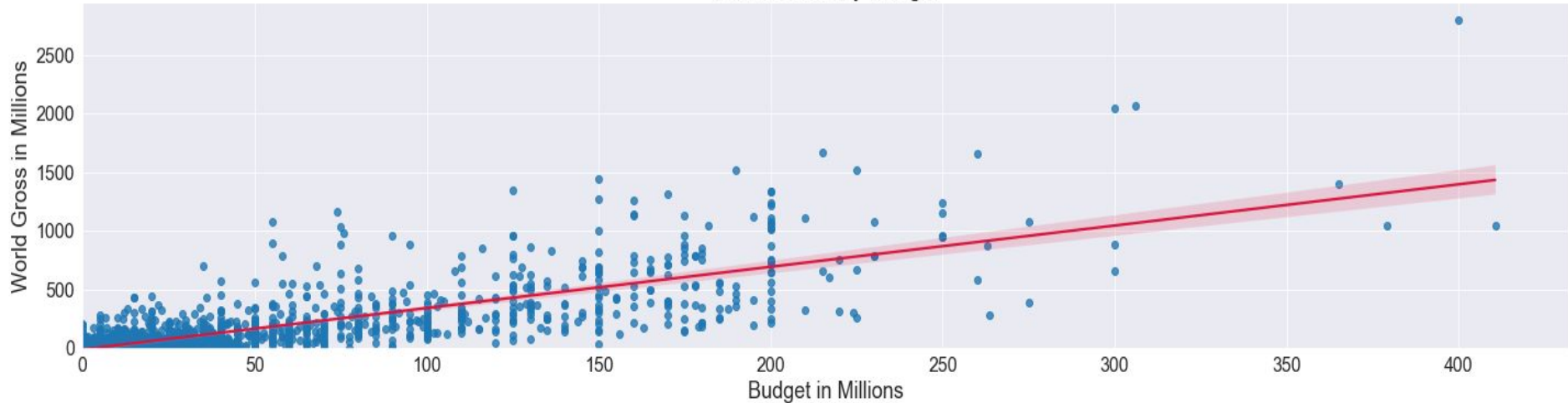
PRODUCTION BUDGET

How much money do you need to
spend to make a great movie?



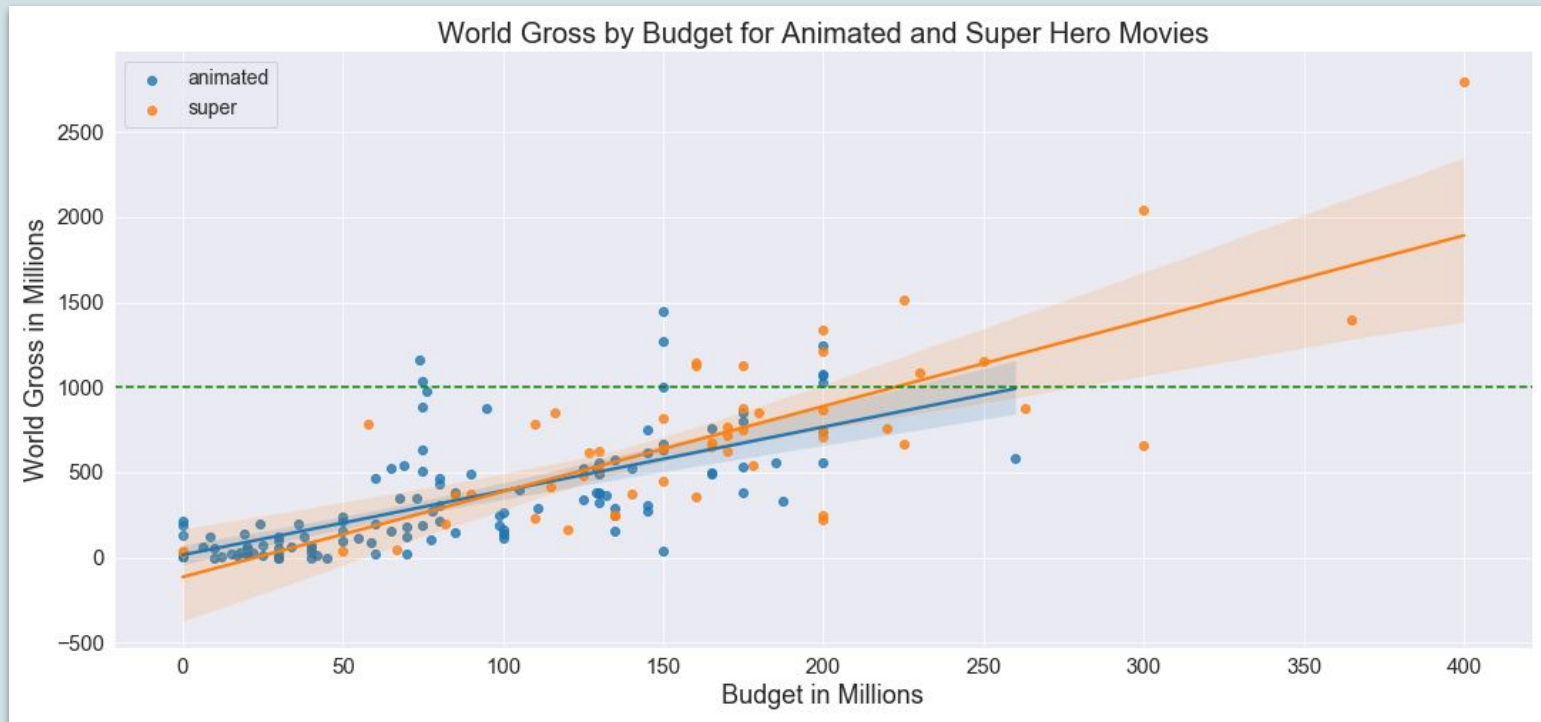
PRODUCTION BUDGET

World Gross by Budget

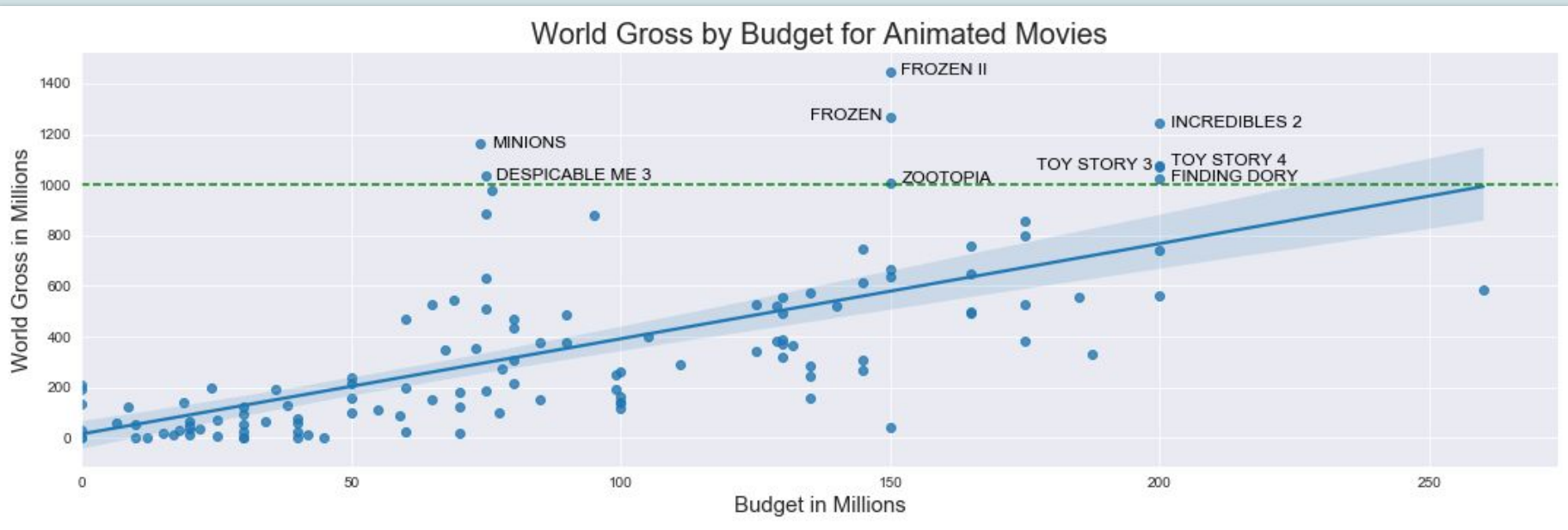


In general, for all movie types, world gross increases as budget increases.

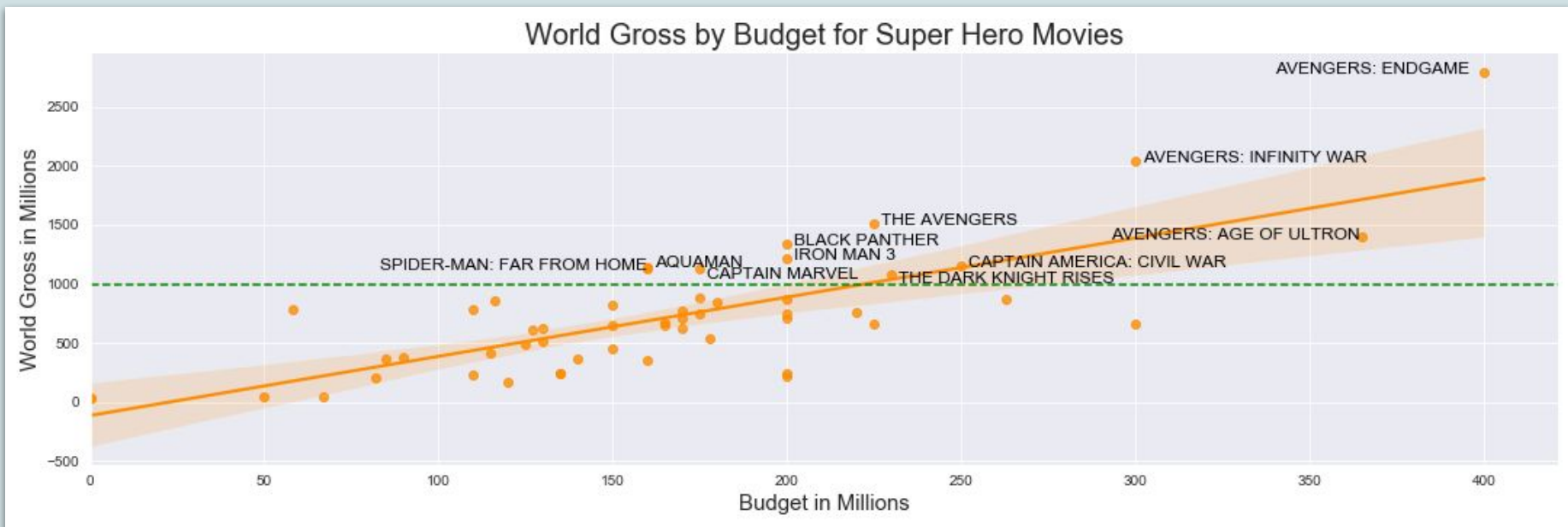
PRODUCTION BUDGET & GROSS BY MOVIE TYPE



ANIMATED MOVIE BUDGET



SUPER HERO MOVIE BUDGET



PUTTING IT ALL TOGETHER

Movie Type

Super Hero movies
and/or animated
musical movies



Release Month

Timing for best release
for these specific types
of movies

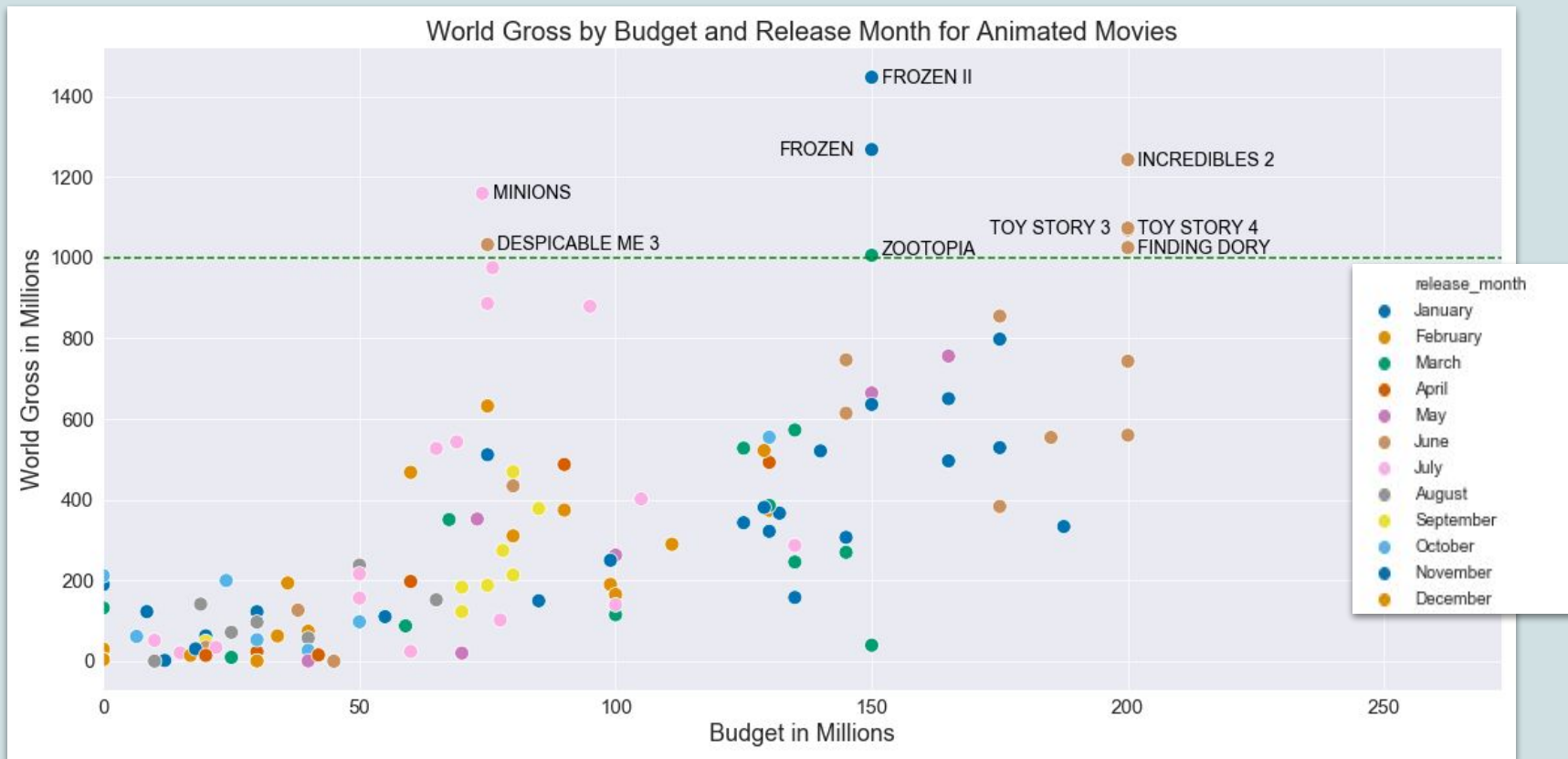


Budget

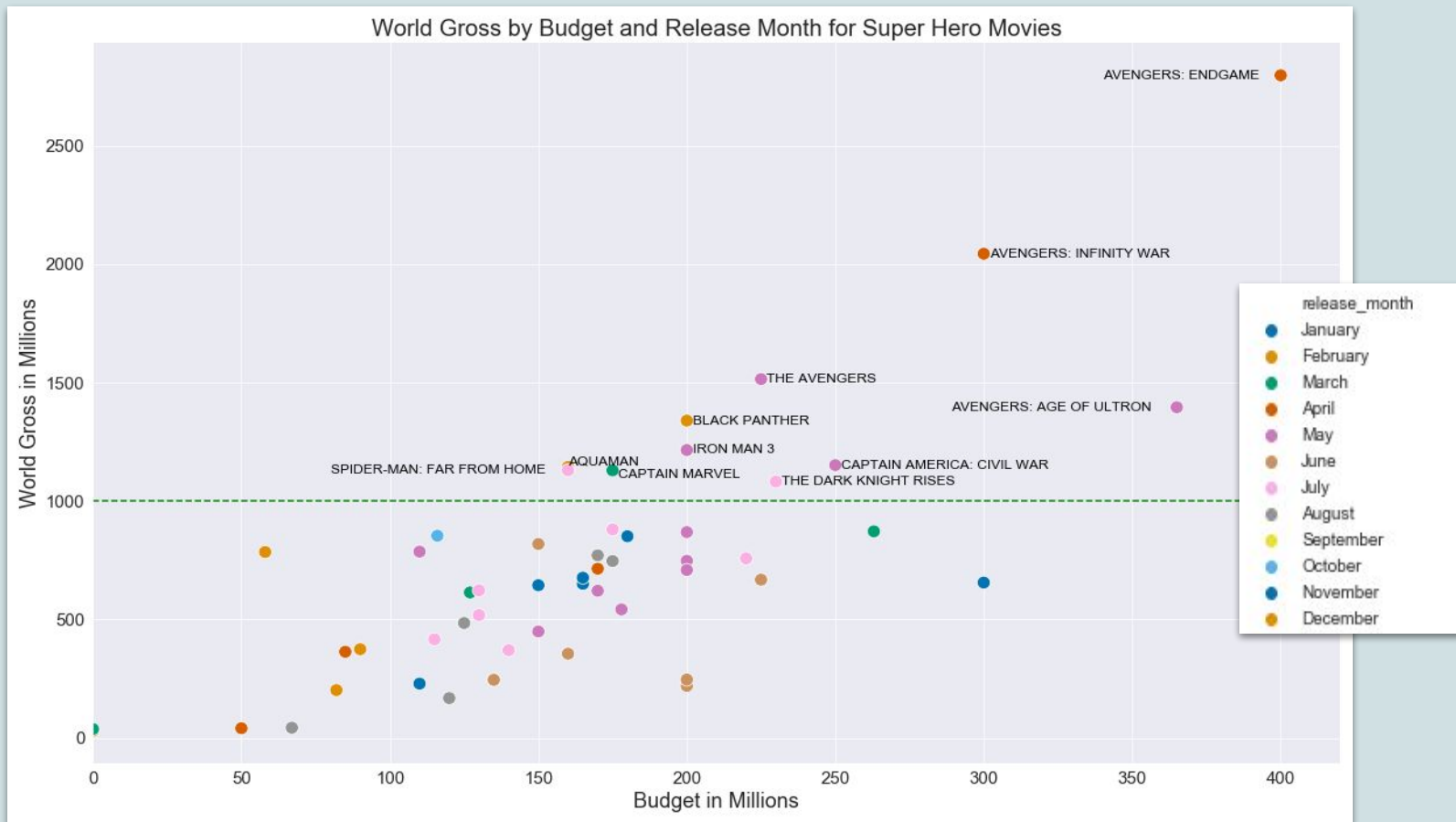
Production budget
optimal for movie type



BUDGET AND RELEASE MONTH FOR ANIMATED MOVIES



BUDGET AND RELEASE MONTH FOR SUPER HERO MOVIES



RECOMMENDATIONS SO FAR...

Movie Type

Super Hero and
animated musical
movies.

Release Time

Super Hero movies:
April or May
Animated musicals:
June or November

Budget

High budget, high gross! 75 to 200
million for animated, 200-400
million for super hero

What else?

Additional
attributes of
successful movies.

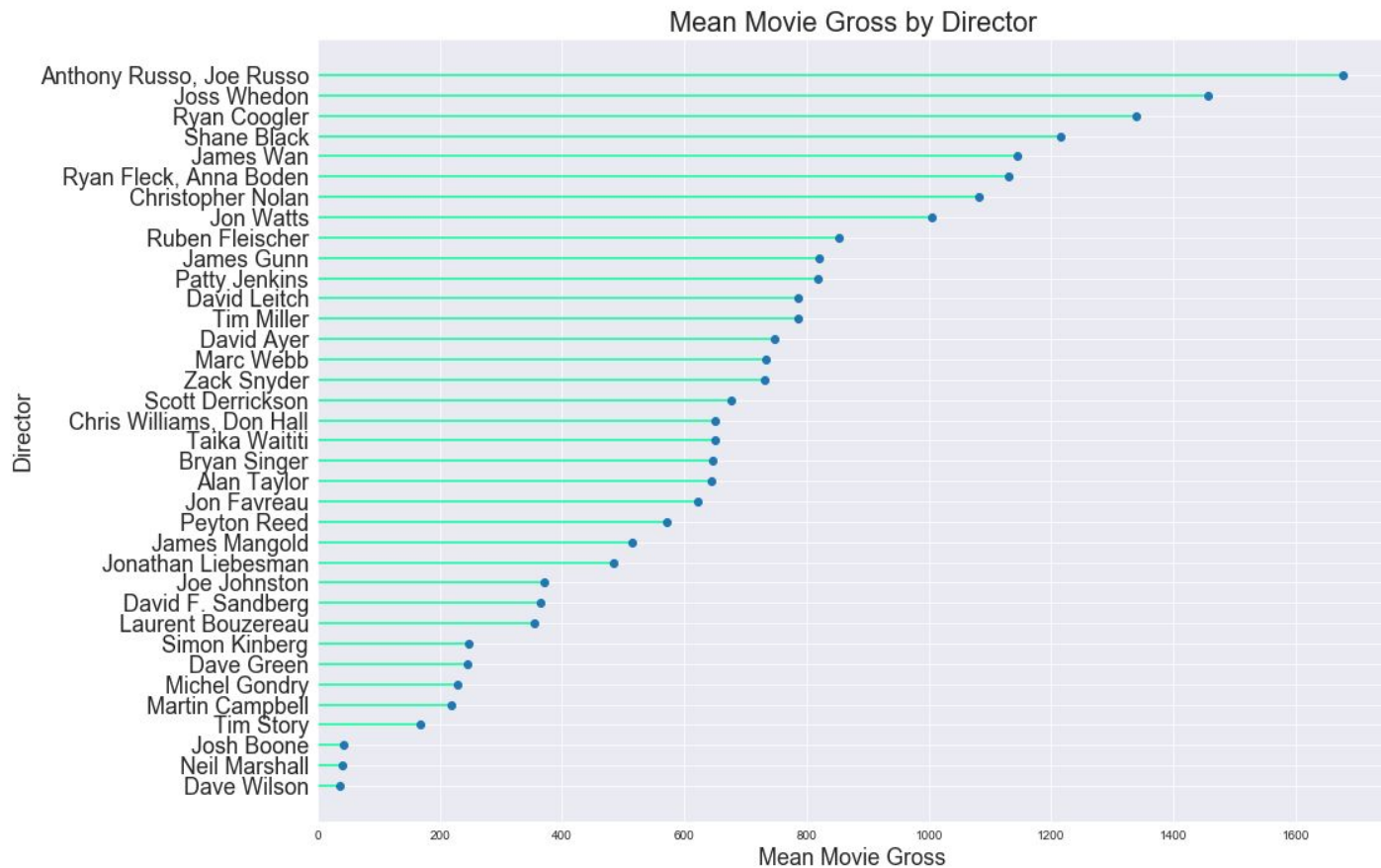




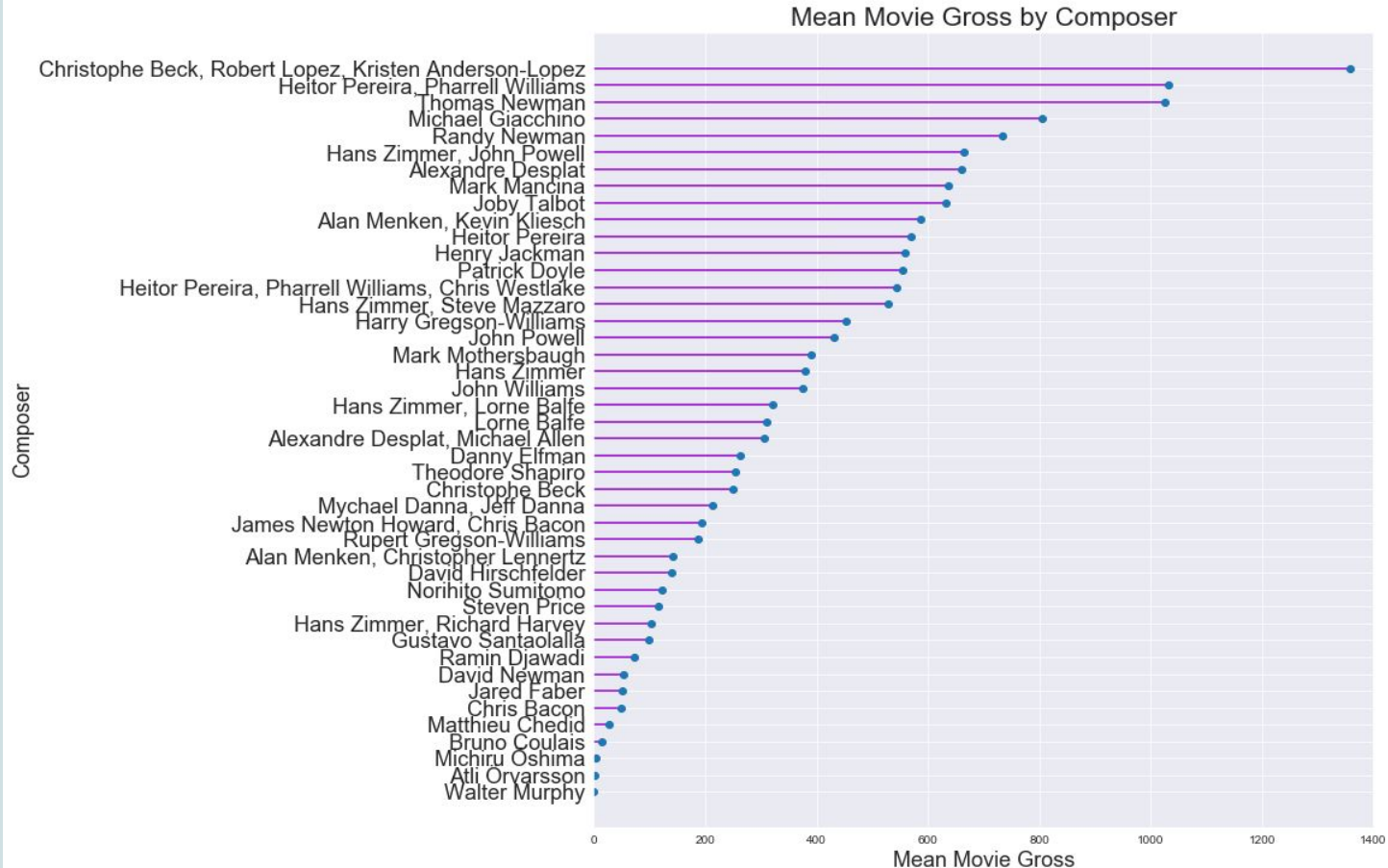
ADDITIONAL ATTRIBUTES

Based on these findings, what else do top-grossing movies have in common?

TOP SUPER HERO MOVIE DIRECTORS



TOP ANIMATED MOVIE COMPOSERS



CONCLUSION

MOVIE TYPE

Live action super hero movie, or
Animated kids fiction musical movie

TIMING

Animated movie in June/November
Super hero movie in April/May

BUDGET

\$75-200 million for animated
\$200-400 million for super hero

PEOPLE

Best directors and
composers, top-notch crew

YOUR TICKET TO SUCCESS!

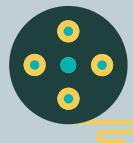


FUTURE CONSIDERATIONS



Additional data

Improve upon data once global pandemic has passed and more box office data becomes available.



Streaming platforms

Explore the possibility of streaming release while theater capacity remains low.



THANK YOU!

For any questions or comments,
please feel free to reach out!

diane.j.tunncliffe@gmail.com

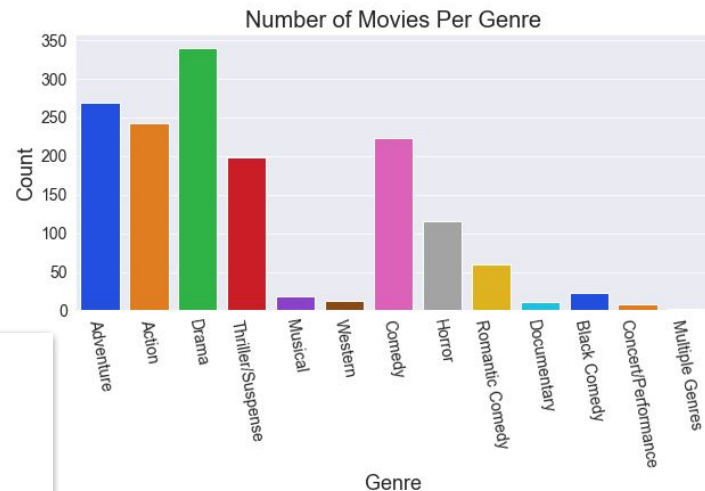
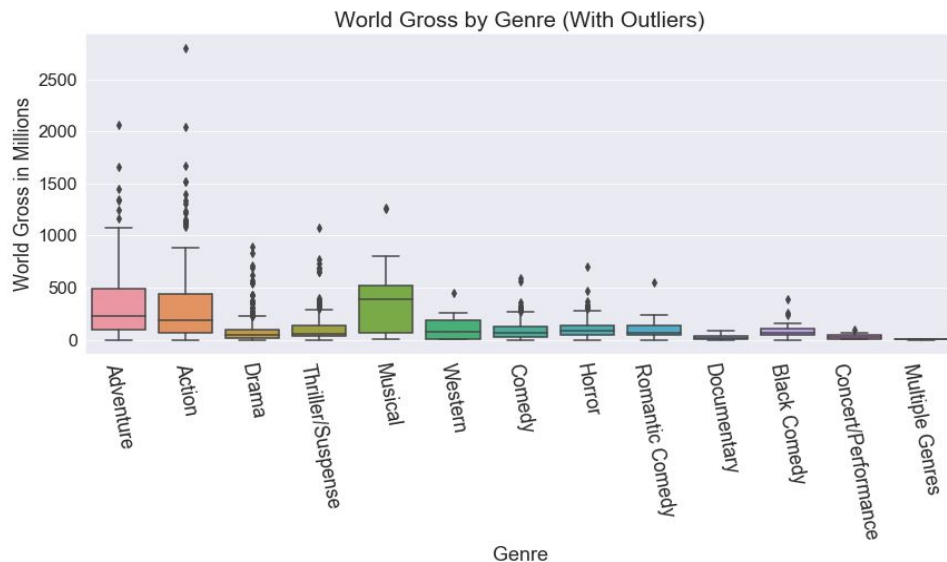
<https://github.com/dtunncliffe/movie-analysis-project>
www.linkedin.com/in/diane-tunncliffe

CREDITS: This presentation template was created
by Slidesgo, including icons by Flaticon, and
infographics & images by Freepik.

APPENDIX

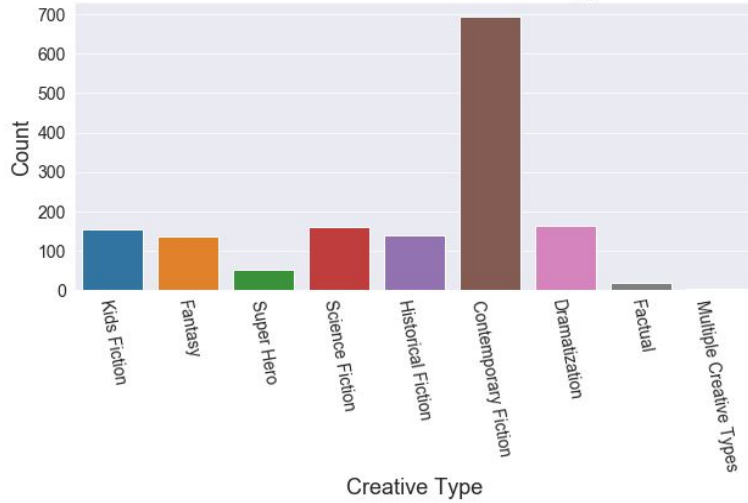
Additional visualizations from this analysis.

World Gross by Genre Including Outliers

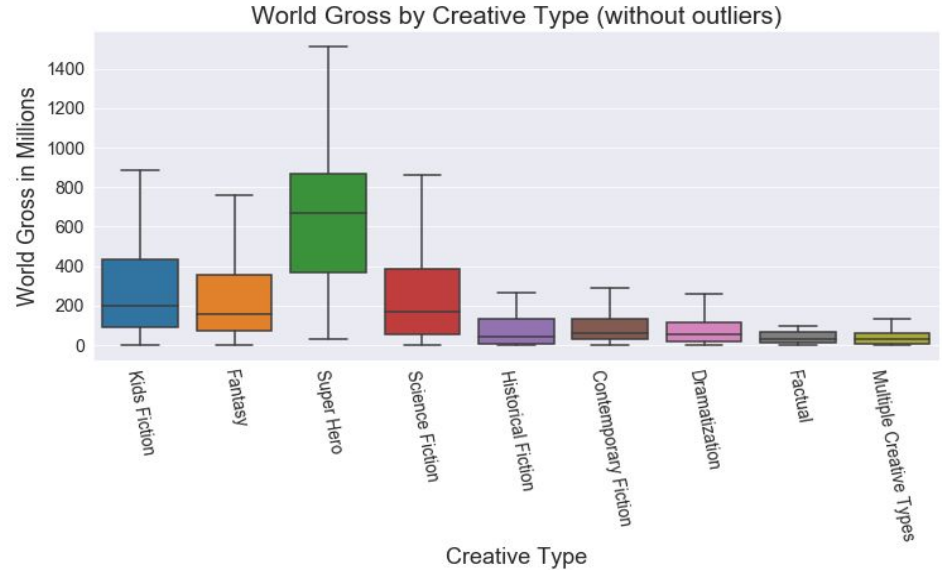


Number of Movies Per Genre in dataset

Number of Movies Per Creative Type

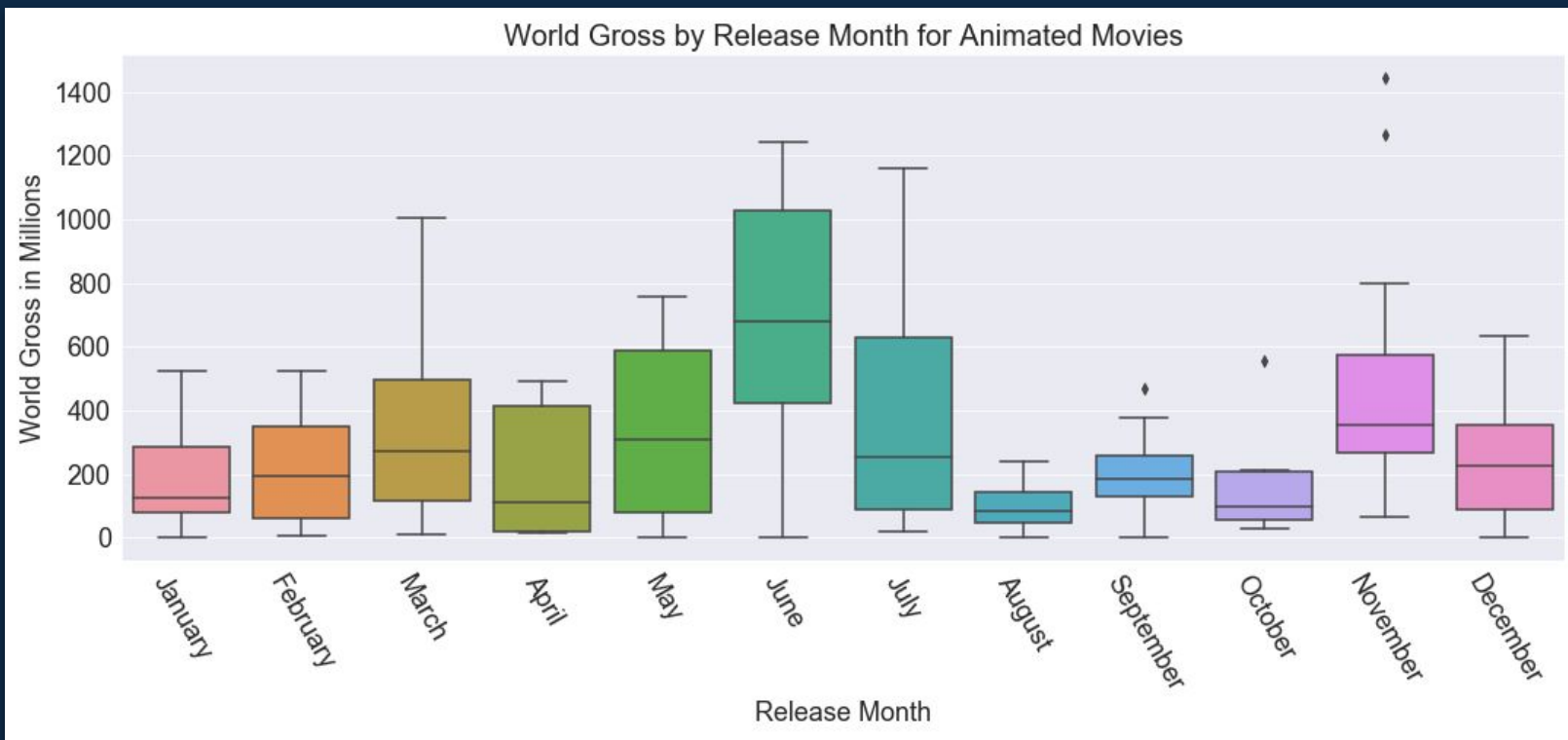


World Gross by Creative Type without outliers

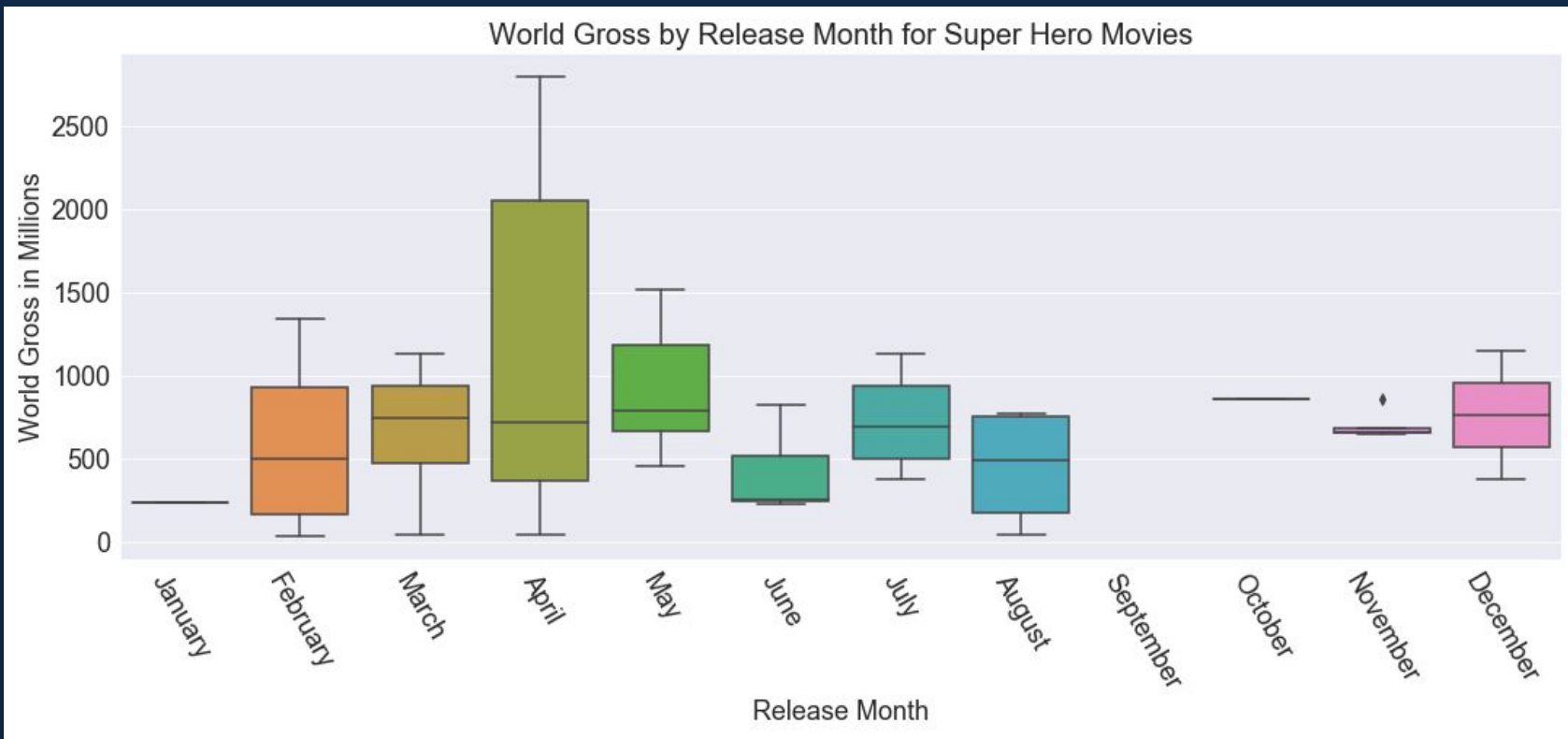


Number of movies per creative type in dataset

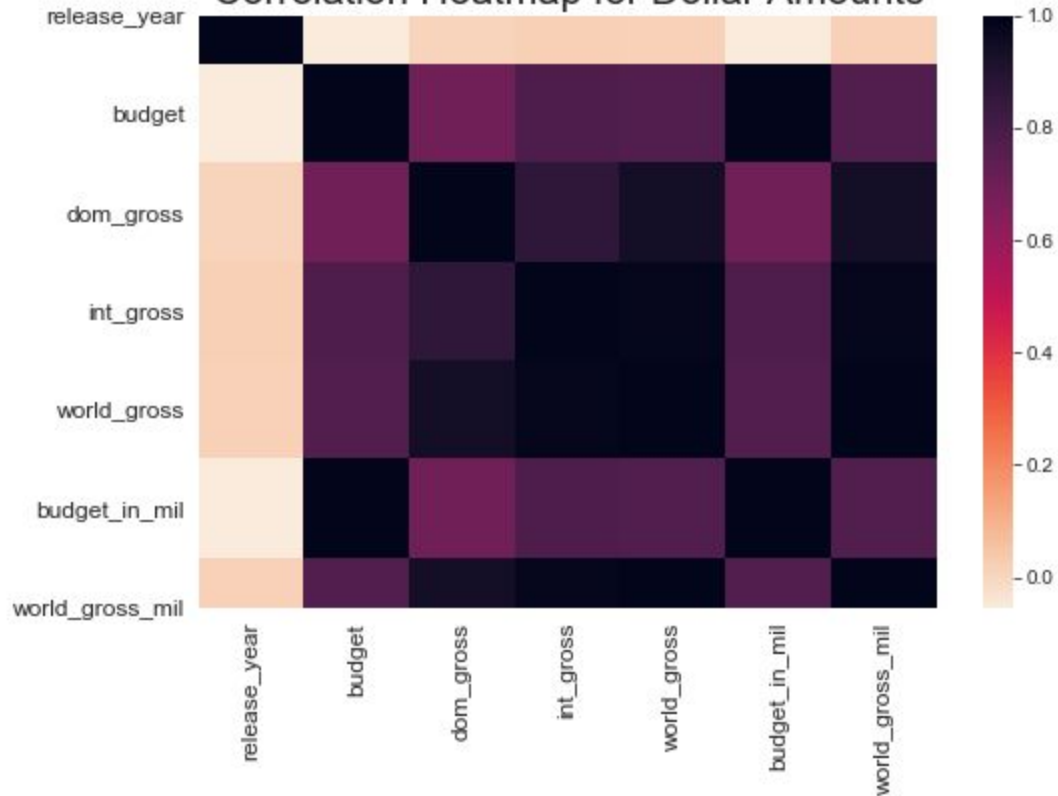
WORLD GROSS BY RELEASE MONTH FOR ANIMATED MOVIES



WORLD GROSS BY RELEASE MONTH FOR SUPER HERO MOVIES



Correlation Heatmap for Dollar Amounts



Heatmap generated off of running `.corr` method on the dataframe to find correlations between numerical data values.

For more information, please visit.

<https://github.com/dtunncliffe/movie-analysis-project>
to view the entire repository for this analysis project.