



*putting
the* **FEATURE**

in **FILMS**

What drives success at the Box Office?

Linear Regression Final Project
Aathira Chennat




In 2019, the Global Film &
Entertainment Market surpassed


\$100

BILLION

DOLLARS



**42% of this is
made at the
box office.**



From 2017-2019, the average box office earnings for a film was

\$22

MILLION

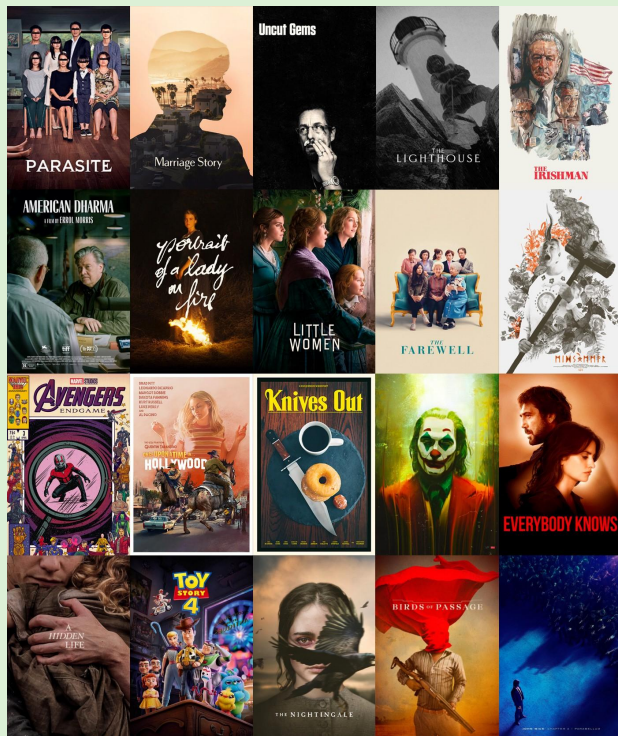
DOLLARS

After paying fixed costs, investors take 50% of the profits.



01 The Client

Financiers looking to get
into the movie business



02 The Data

Films Screened
Domestically 2017-2019

THE NUMBERS



1,481 Observations



22 Features



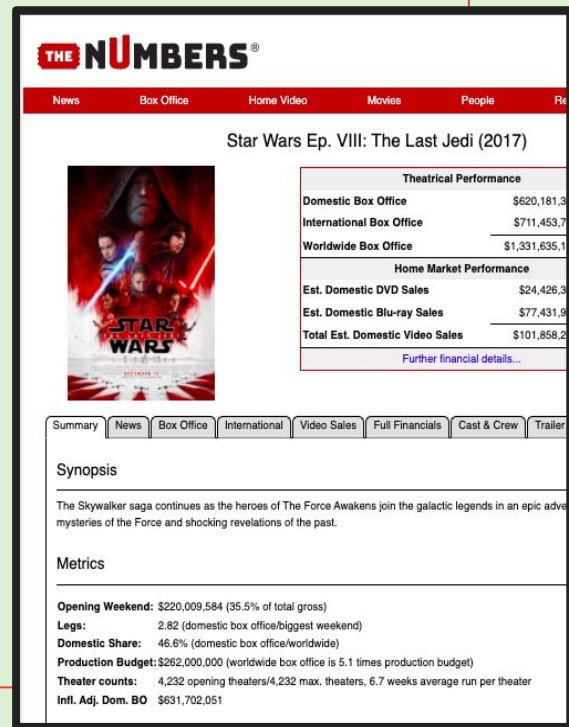
10 Numeric



12 Categorical

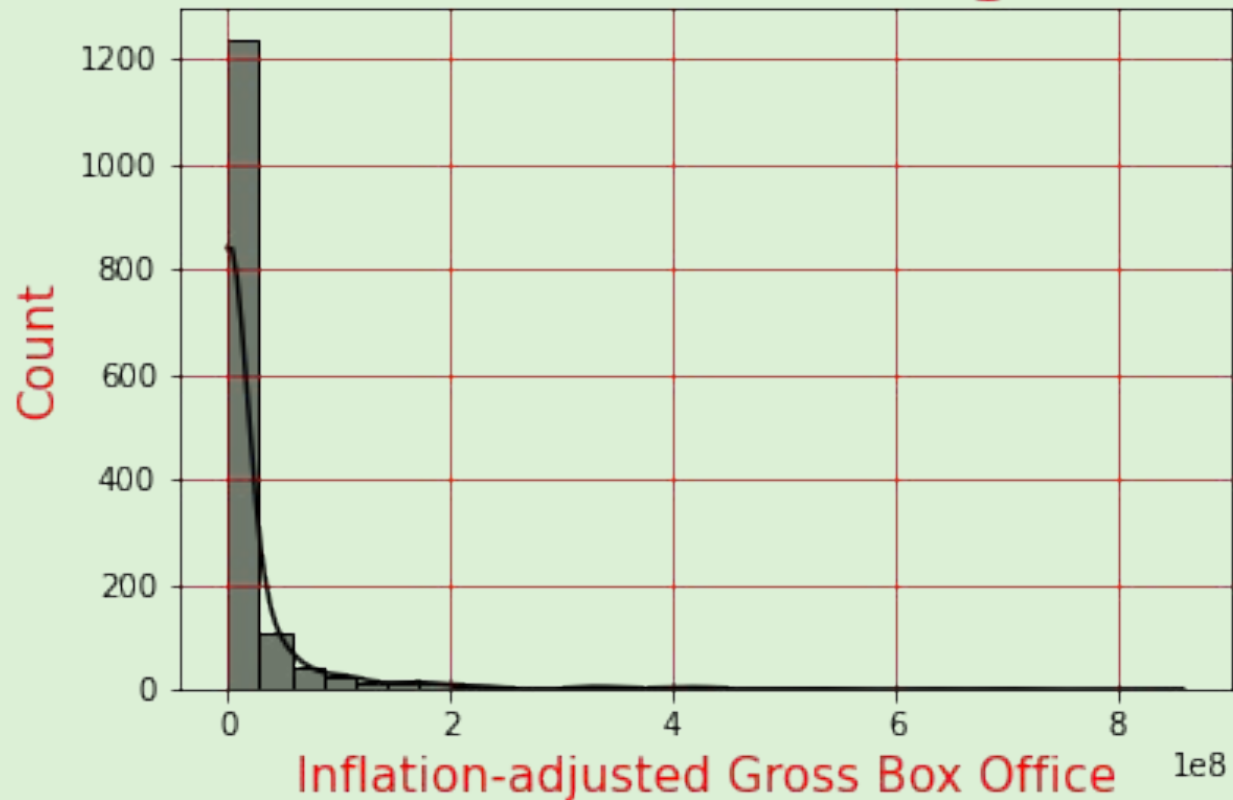


Scraped via Beautiful Soup






Distribution of Target

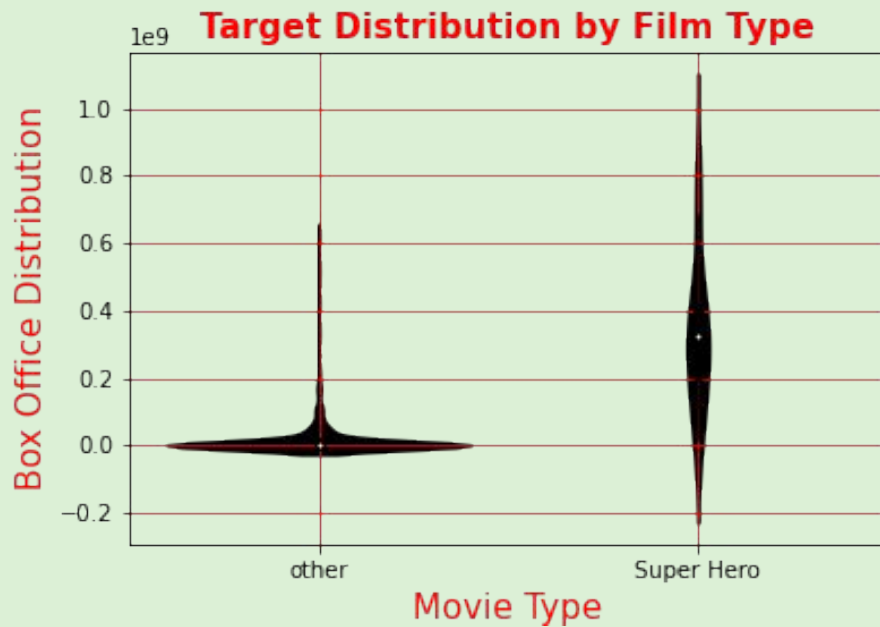


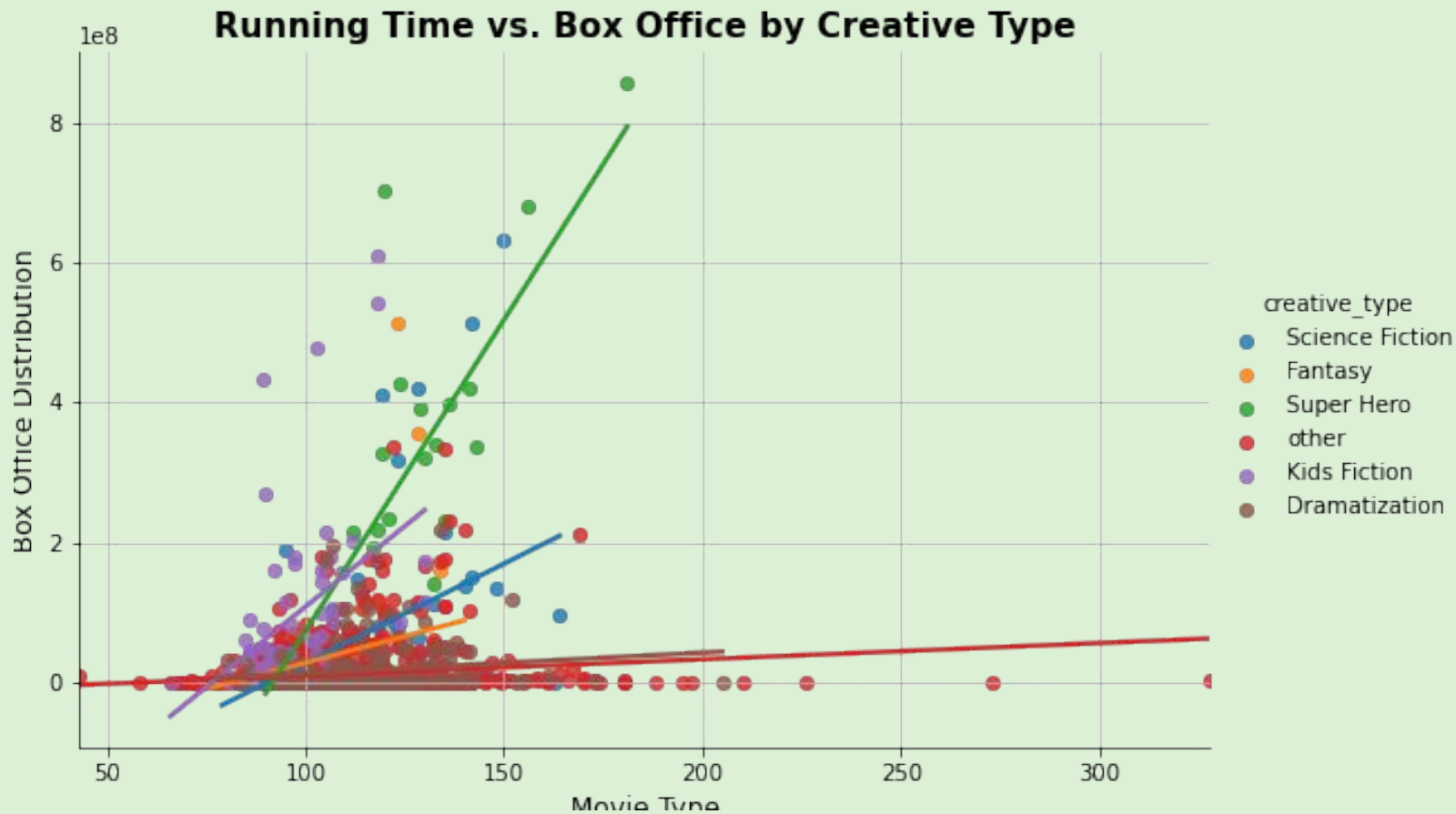
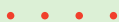
*Inflation-Adjusted
Domestic Box Office*

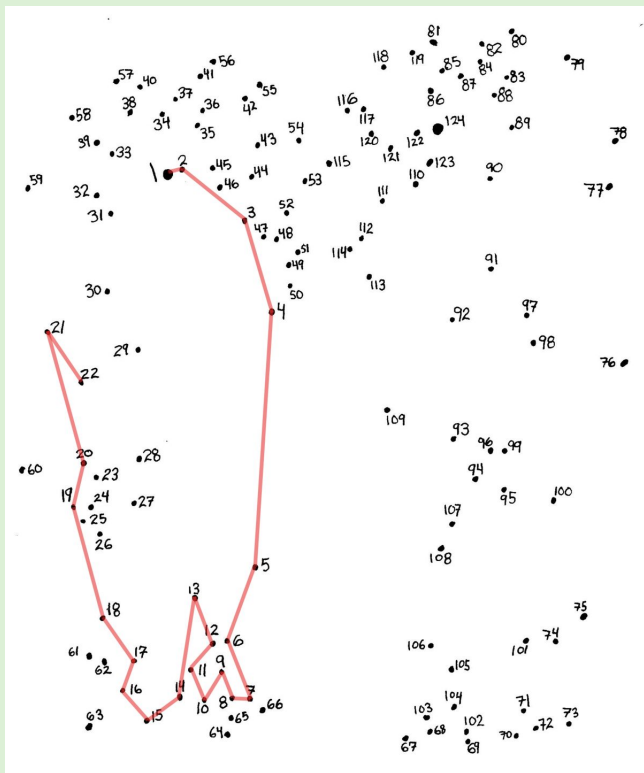
 Running Time

 Genre

 Distribution Company

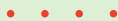






03 The Model





RESULTS

\$23M

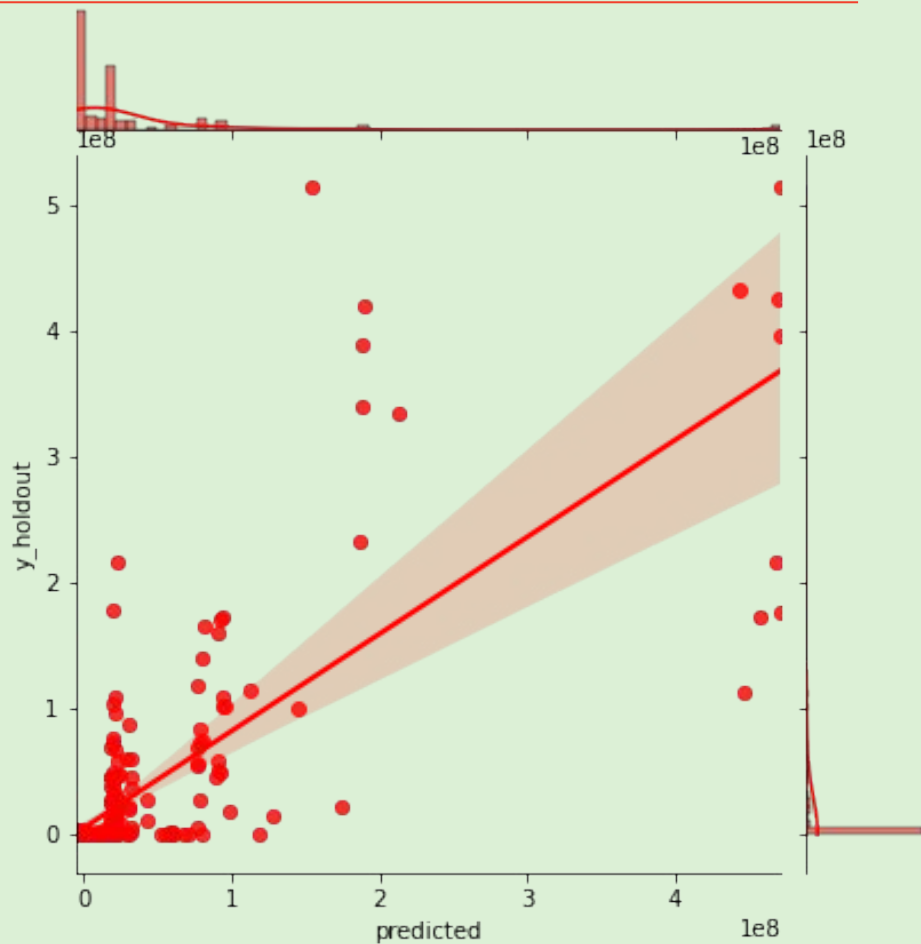
Mean Adjusted Error

49%

R-Squared

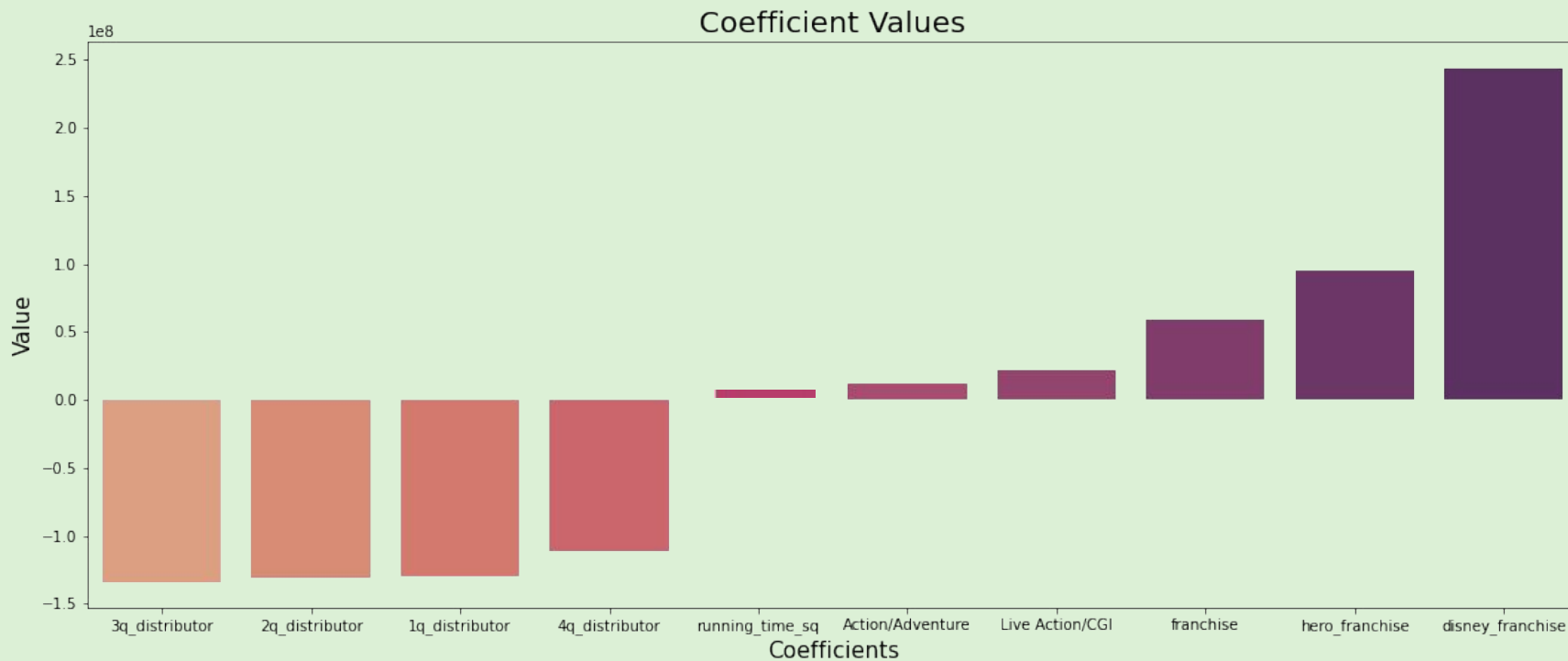
10

Features





FEATURES



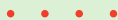


DISCUSSION

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Where do we go
from here?

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NEXT STEPS

MANAGE OUTLIERS

- Limit dataset to 1st and 2nd quartile distribution companies.

CLEAN FEATURES

- Running time is noisy, and likely introducing multicollinearity. Incorporate Production budget.

EXTEND TIMEFRAME

- Gather more observations, starting with 2014 or 2015.



appendix

1. Follows, Stephen. *Do Hollywood Movies Make a Profit?* 07/25/2016. Steven Follows: Film Data and Education. Retrieved 02/19/2022:
<https://stephenfollows.com/hollywood-movies-make-a-profit/>
2. Escandon, Rosa. *The Film Industry Made a Record-Breaking \$100 Billion Last Year.* 03/12/2020. *Forbes*. Retrieved 02/19/2022:
<https://www.forbes.com/sites/rosaescandon/2020/03/12/the-film-industry-made-a-record-breaking-100-billion-last-year/?sh=64bc1c7e34cd>
3. Mean gross box office earnings calculated using data from The Numbers.
<https://the-numbers.com/>