

Smart Movies for a Smart Company

How Microsoft can make a splash in Hollywood

Business Understanding

Microsoft wishes to make movies and seeks guidance



Business Understanding

What does it mean to be a “successful” movie? ROI



Business Understanding

What is success attributable to? Genre? Running time? Something else?



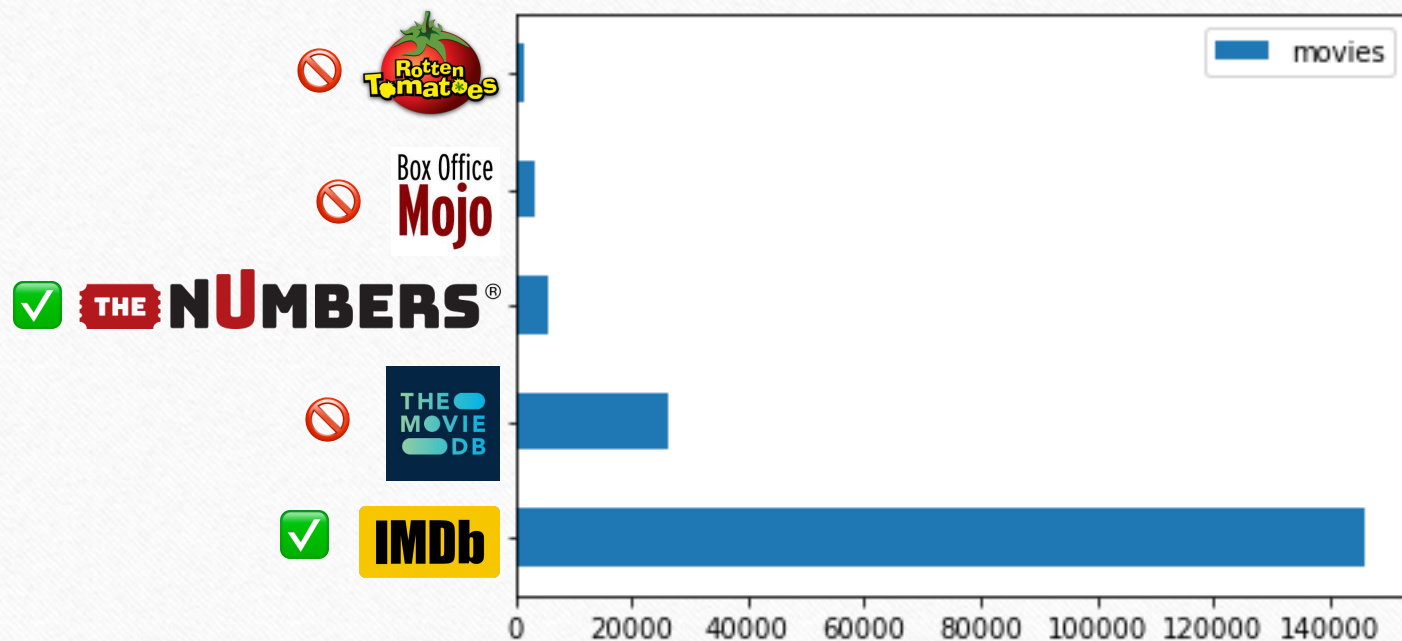
Data Understanding

Available data comes from a handful of sources

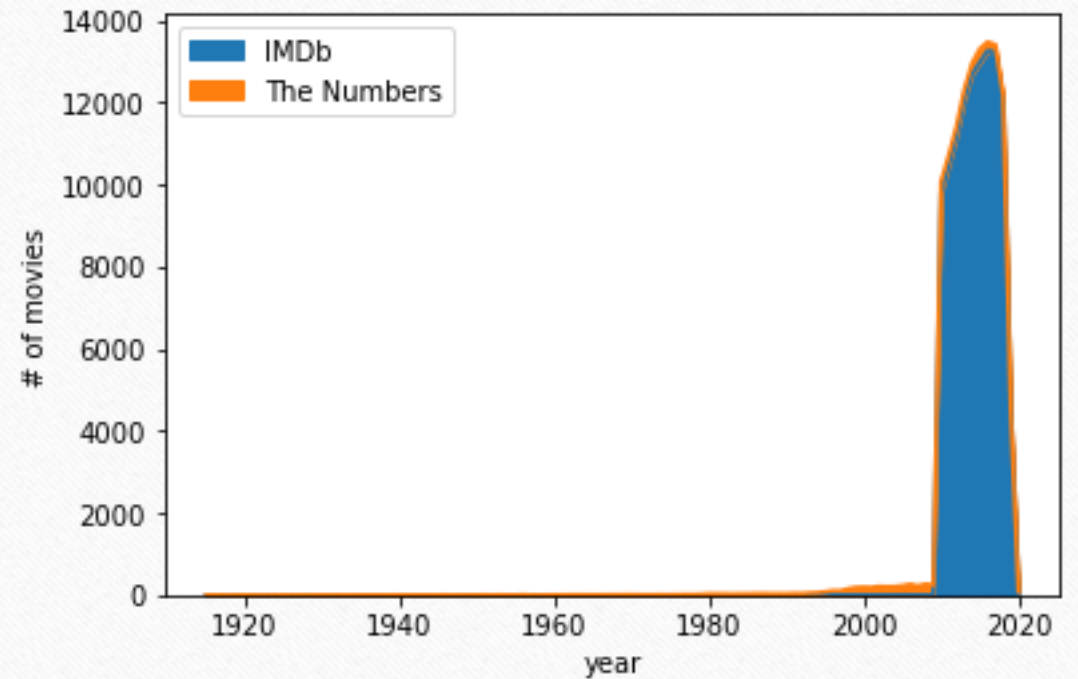
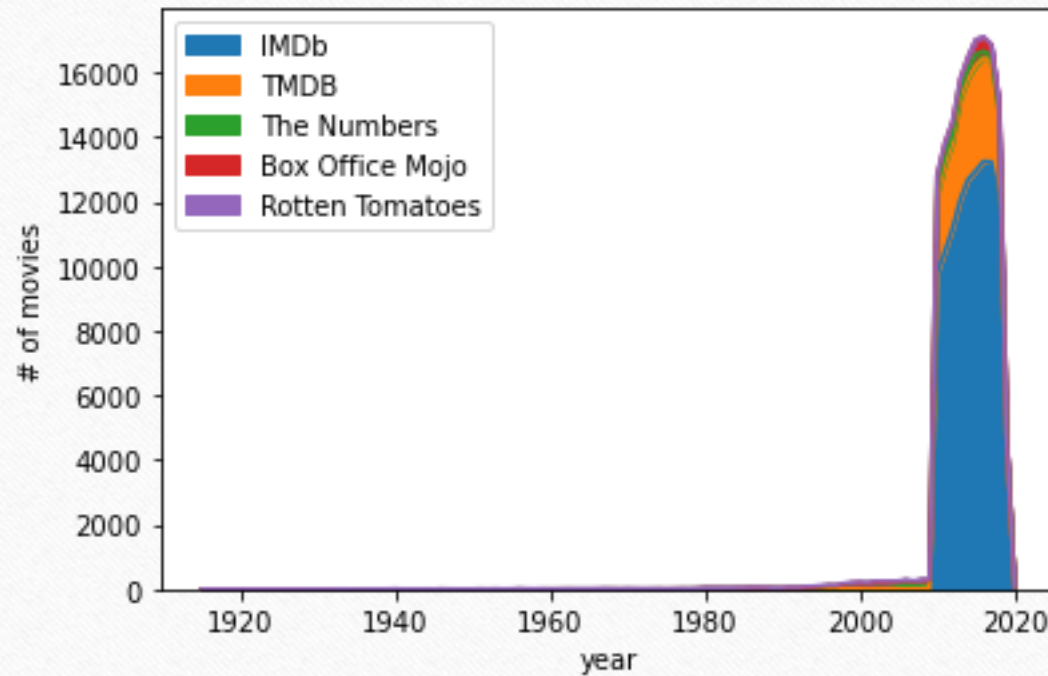


THE Box Office Mojo RS[®]

- 1,560 movies
- 54,423 reviews
(incomplete)
- ratings and crew
- no titles!!



Data Understanding



Data Understanding

- Solution:

2010-2018



Data Preparation

SOLVED:

- remove duplicates
- pull years from release dates
- reformat strings as integers

Data Preparation

DISMISSED:

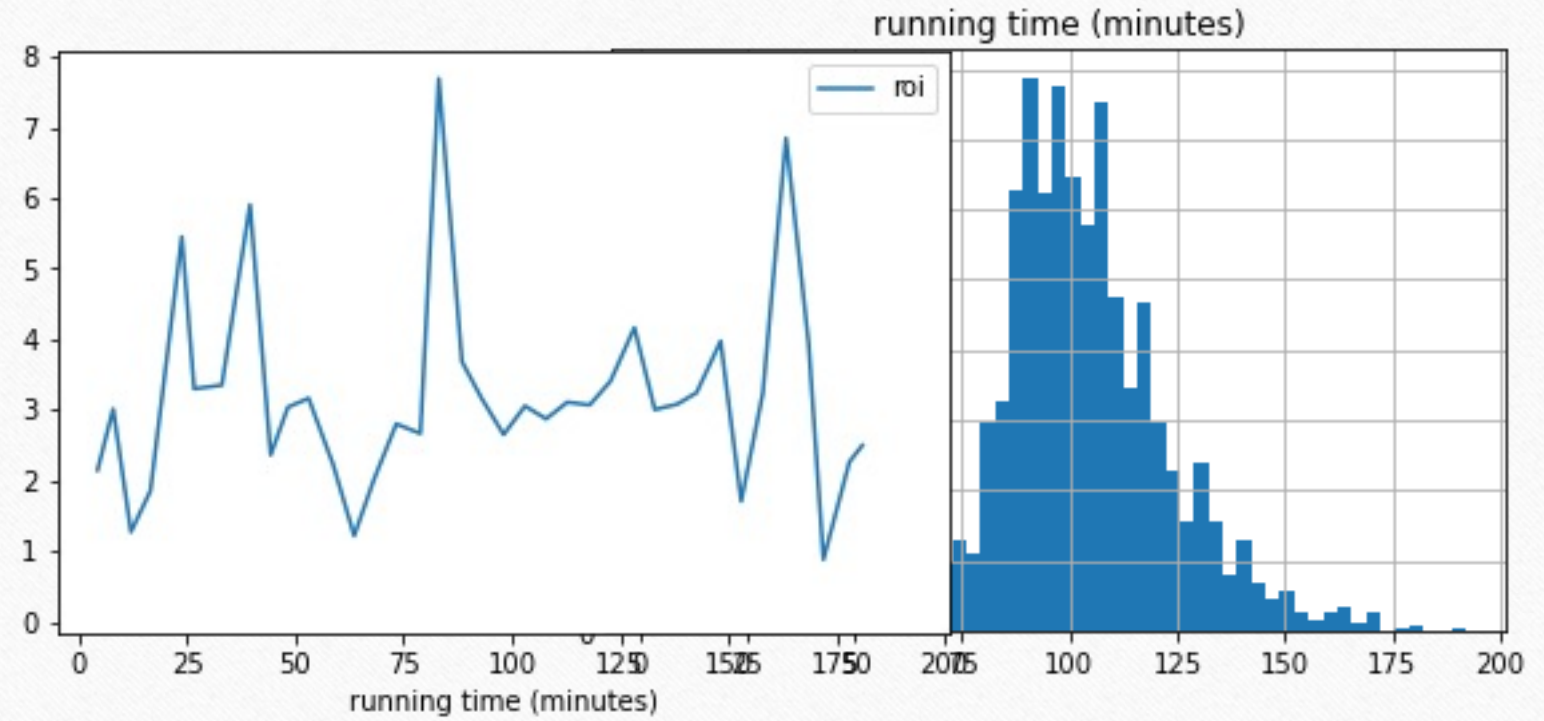
- title mismatches (“Part II” vs. “Part Two”)
- missing runtimes (5.4% of usable data)
- missing genres (1.2% of usable data)

Data Preparation

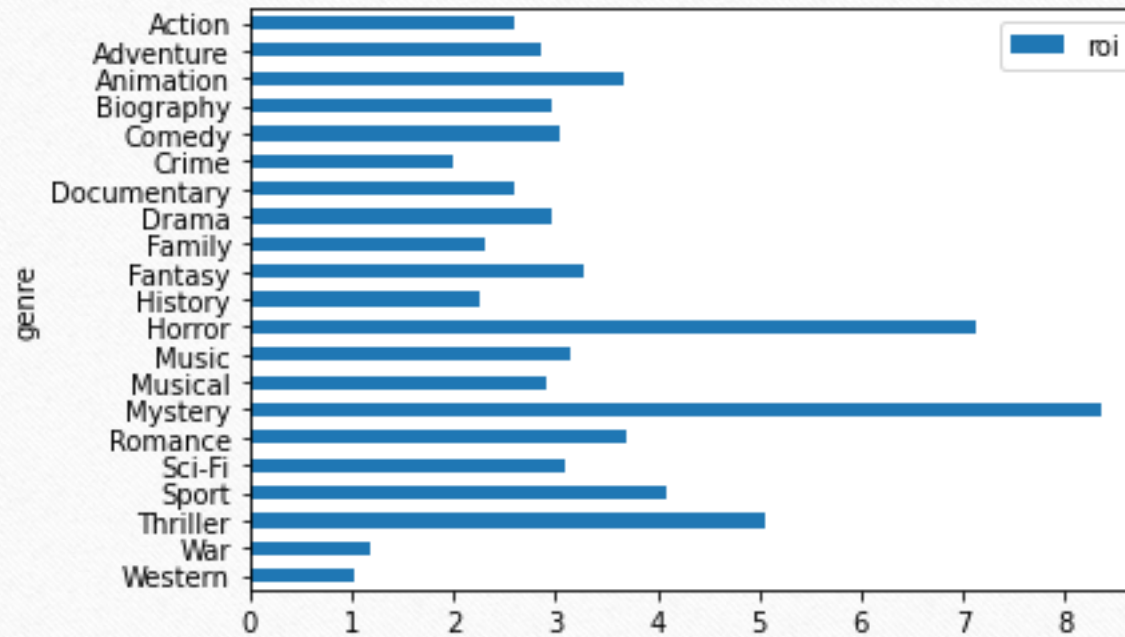
FEATURE CREATION:

- ROI
- runtime intervals
- distinct genres
- “past profitability”
- “budget experience”

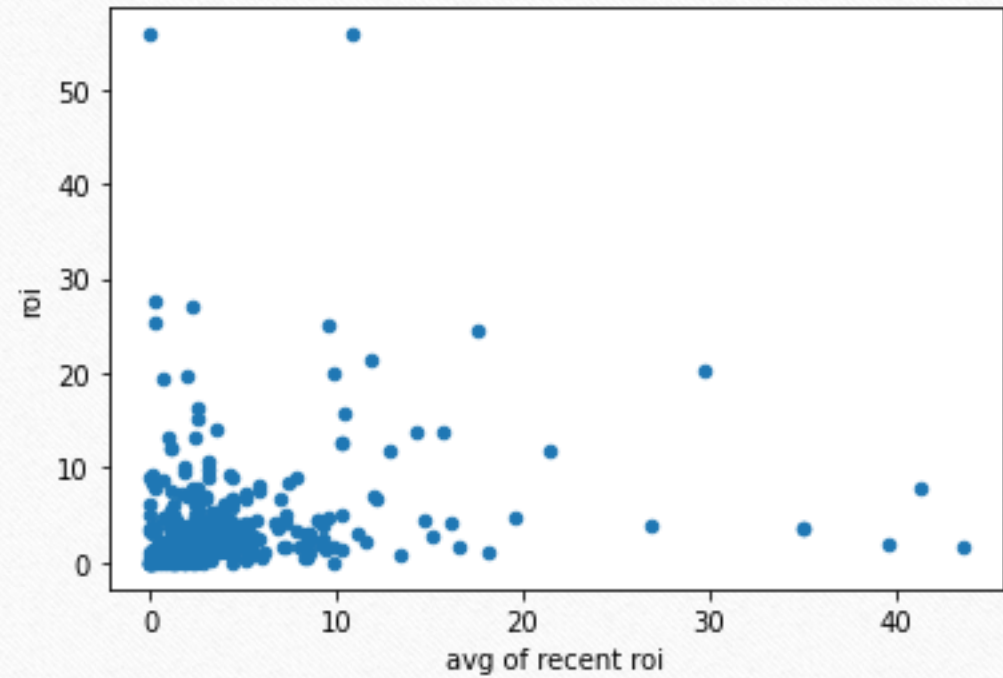
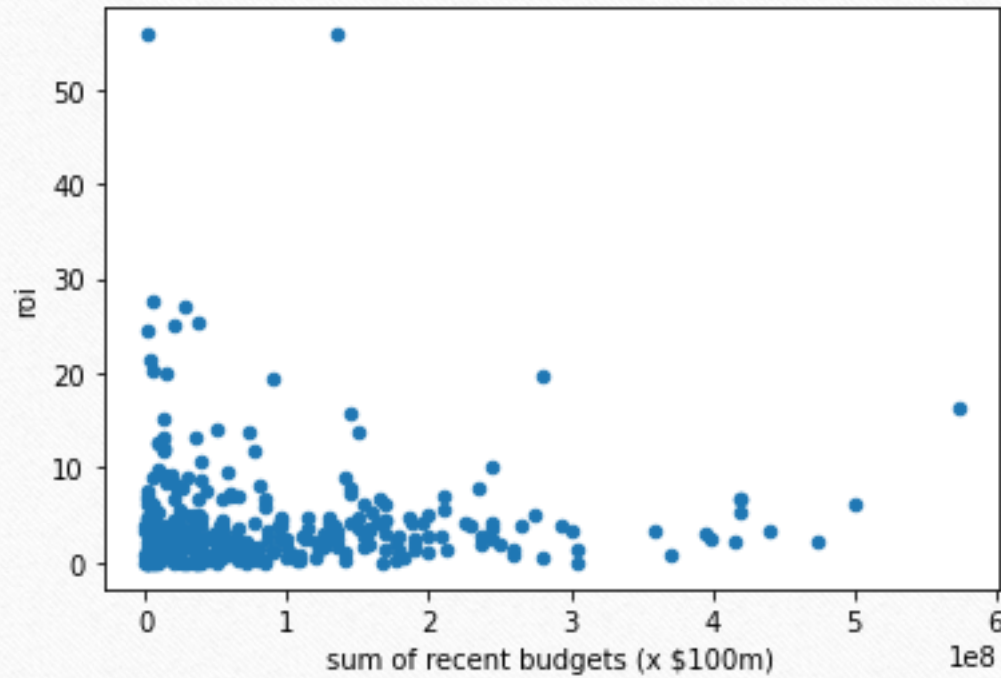
Modeling & Evaluation



Modeling & Evaluation



Modeling & Evaluation



Recommendations

1. Make a movie that's 80-85 minutes long
2. Make it in the “horror” and/or “mystery” genre
3. Don't worry about director experience

Thank you

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