



Success in Film

A Deep Dive into Lucrative Cinema



Successful Movies bring an RoI of $> 1.75x$



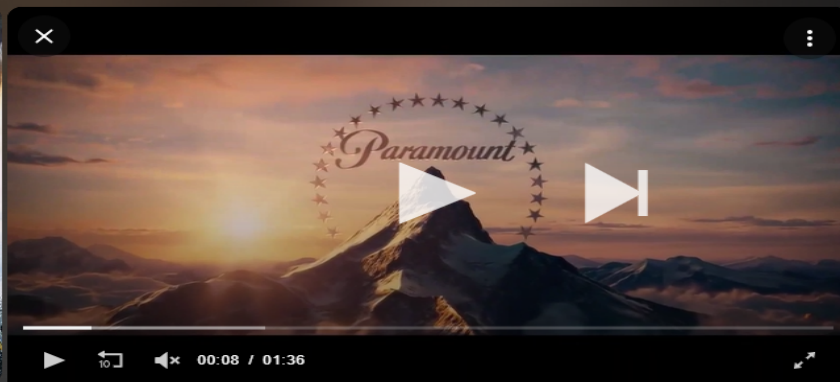
- Budget: \$210 Million
- Year: 1997
- Revenue: \$3.33 Billion

15.85x RoI!

Budget & Year are key factors in determining SUCCESS!

Titanic

1997 · PG-13 · 3h 14m



41 VIDEOS 192 85 24 20 11 32

Disaster Epic Period Drama Romantic Epic Tragedy Tragic Romance Drama Romance

A seventeen-year-old aristocrat falls in love with a kind but poor artist aboard the luxurious, ill-fated R.M.S. Titanic.

★ 7.9/10 1.3M ☆ Rate 🔄 133 ↕ 55

Director James Cameron

Writer James Cameron

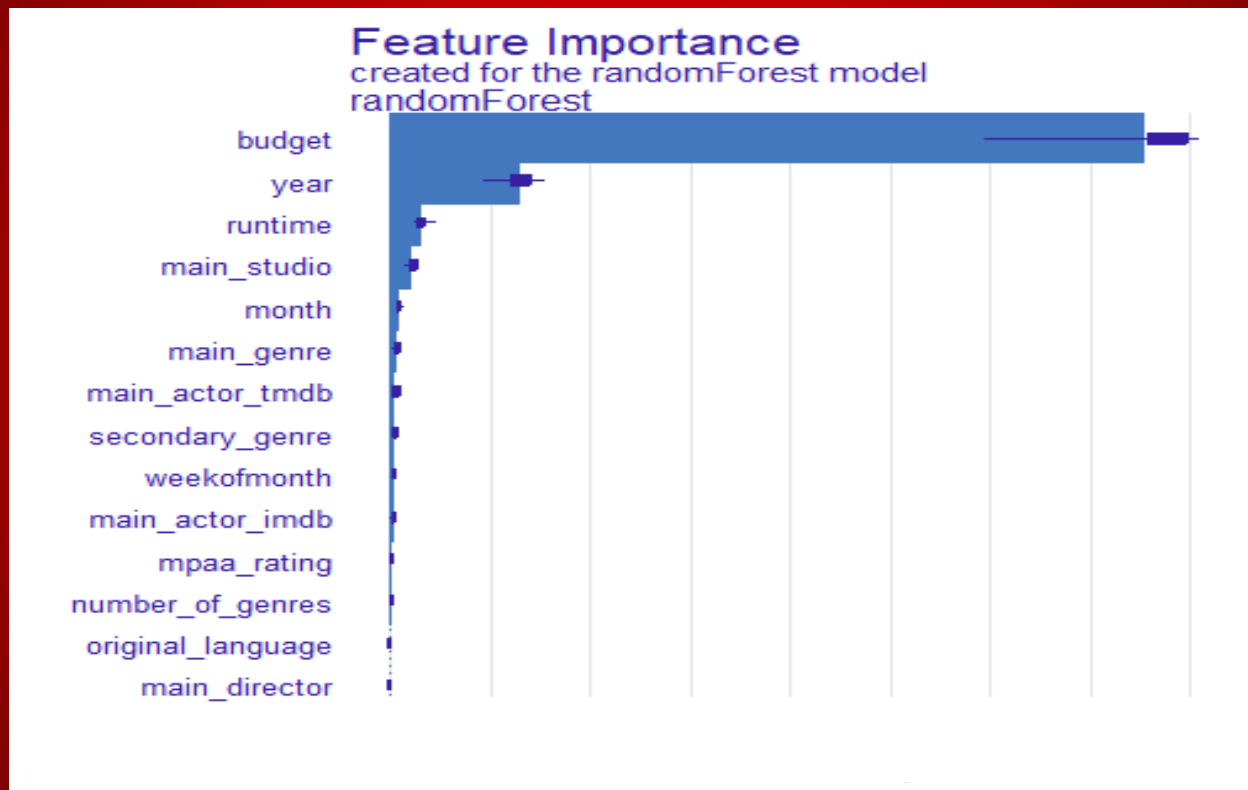
Stars Leonardo DiCaprio · Kate Winslet · Billy Zane

Data includes ~2,000 Movies from 1980-2022

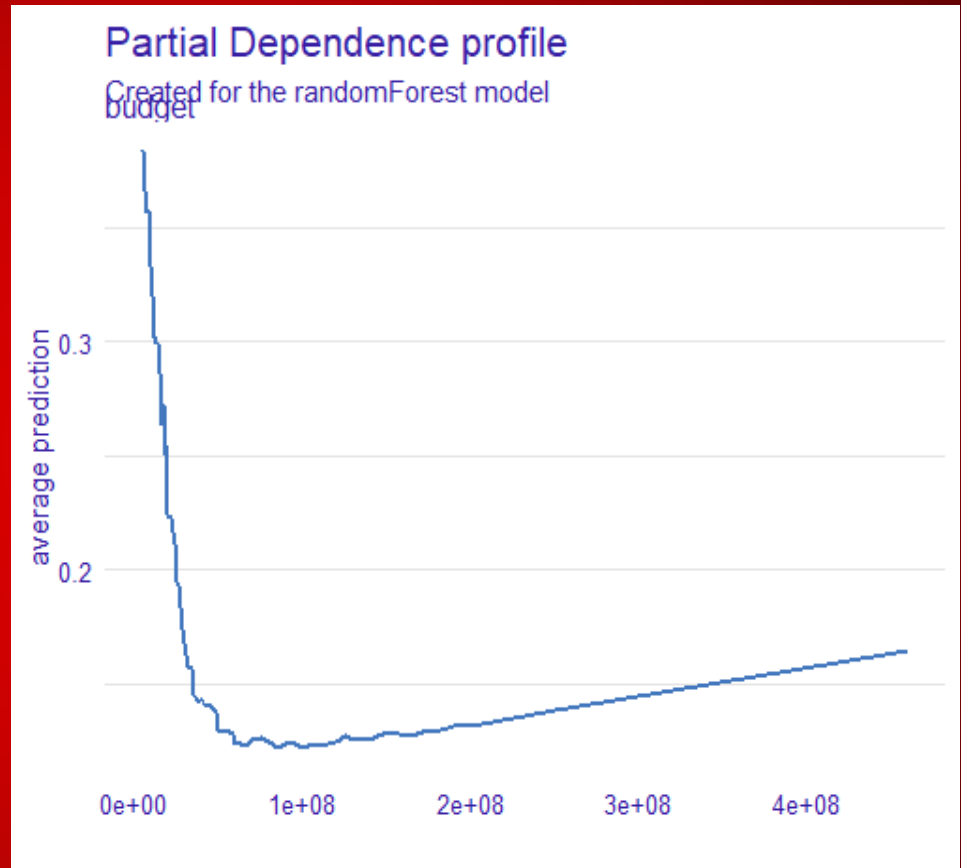
Random Forest Modeling

- Combines different subsets of data to make predictions based on target variable to make “decision trees”
- Combines all decision trees to make FINAL prediction
- **83.1% accuracy**
- **17.1% average success rate**

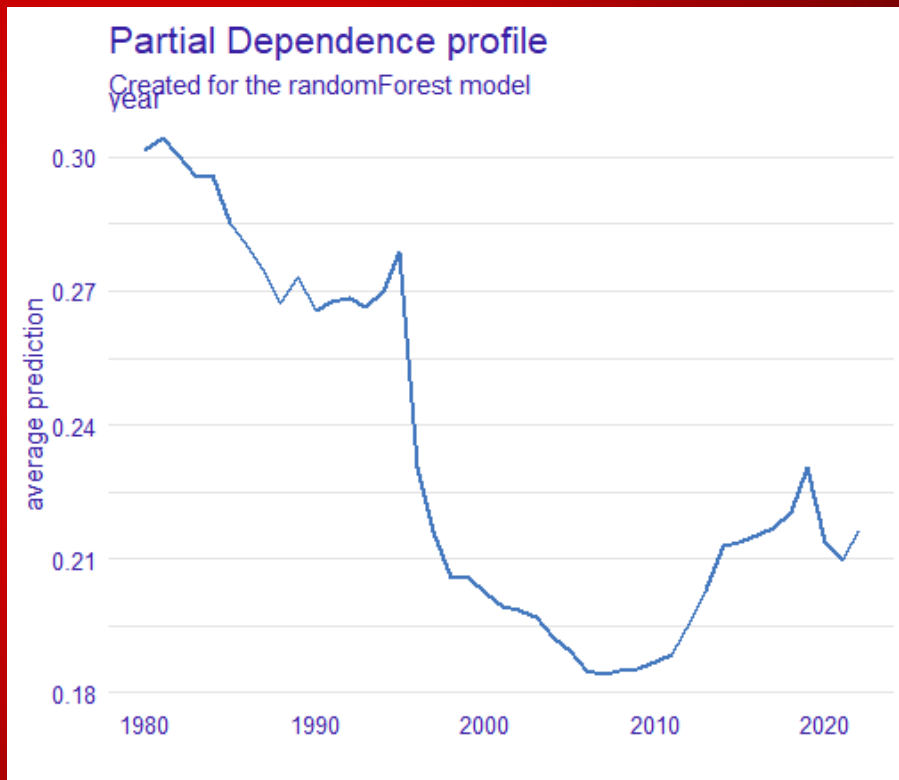
Budget & Year are the Key Components of Success



- Higher success at budget < \$10 million

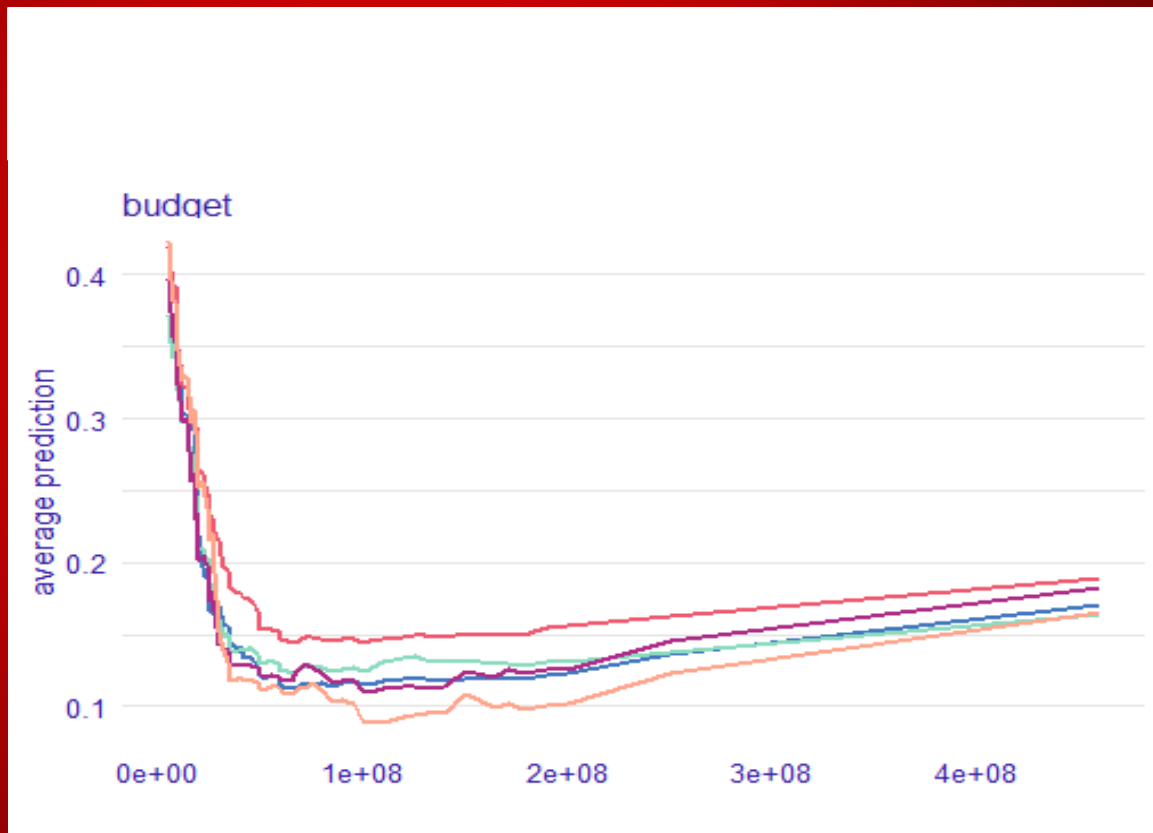


- Higher success during early years
- Gauge of RoI in film industry over time



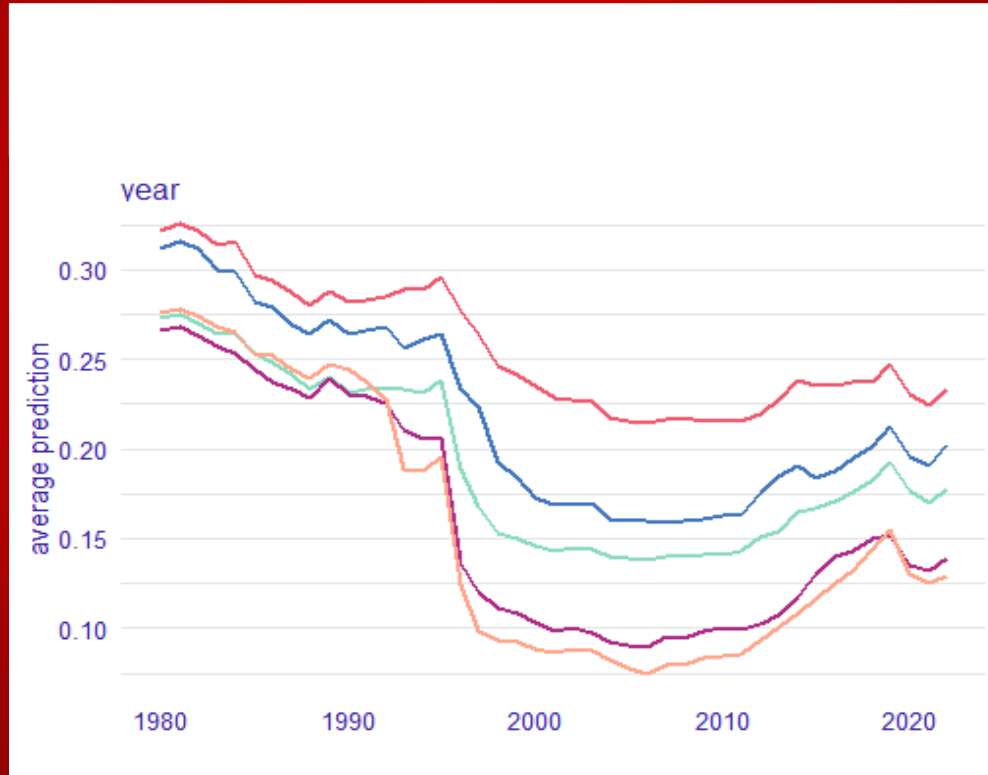
Very Low or Very High Budget + 1 Genre

- 1 Genres
- 2 Genres
- 3 Genres
- 4 Genres
- 5 Genres

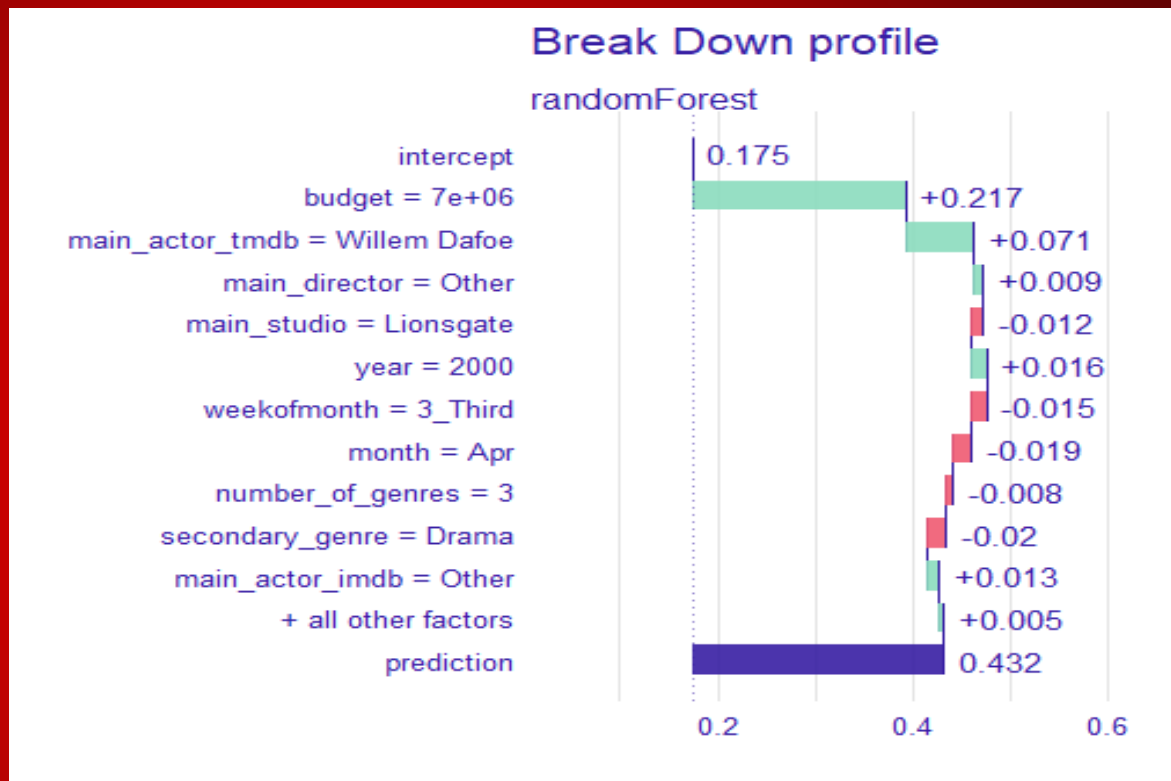


Over Time, a Single Genre Remains Dominant

- 1 Genres
- 2 Genres
- 3 Genres
- 4 Genres
- 5 Genres



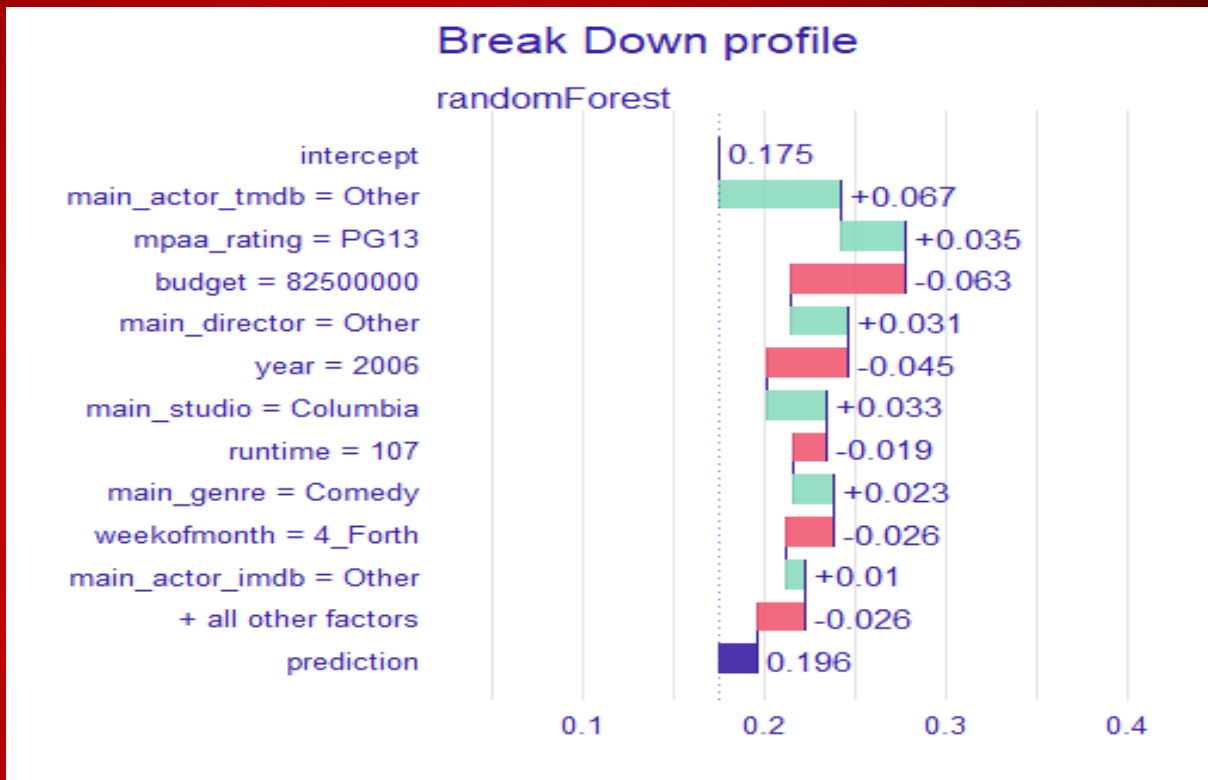
**HIGHER SUCCESS
CHANCE**



Key Components Affect Every Movie Differently!

—

LOWER SUCCESS
CHANCE



Key Components Affect Every Movie Differently!

Takeaways/Conclusion

- Budget and Year are KEY factors in determining **SUCCESS**
- Key factors will affect every movie differently

Using the model will help predict success rate given movie factors!

Data Dictionary

- budget
- year
- runtime
- main_studio
- month
- main_genre
- main_actor_tmdb
- secondary_genre
- weekofmonth
- main_actor_imdb
- mpaa_rating
- number_of_genres
- original_language
- main_director