



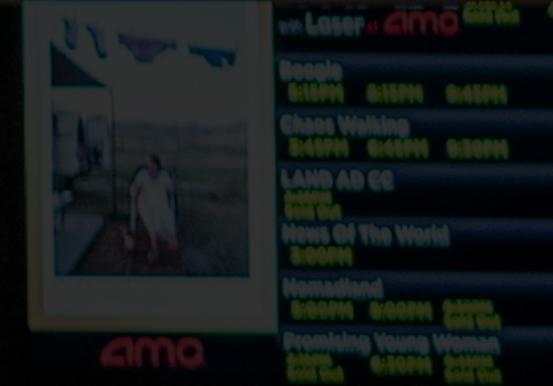
PREDICT REVENUE OF A SUCCESSFUL THEATRICAL MOVIE

BY ATRIN SARMADI



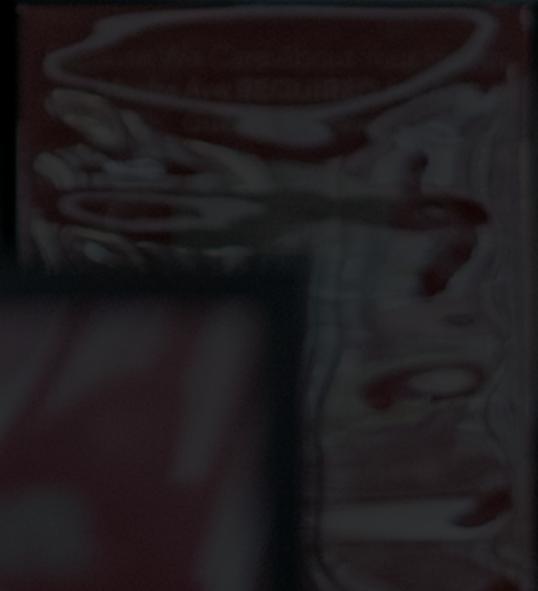
INTRODUCTION

BOX OFFICE



Masks Are REQUIRED
For All Guests & Crew

PLEASE PUT YOURS ON BEFORE ENTERING.
Masks are available for purchase if needed.



INTRODUCTION

- HOW SUCCESSFUL?

- TOOL

- Using Linear Regression

METHODOLOGY

WEB SCRAPING

boxofficemojo.com

Domestic International Worldwide Calendar All Time Showdowns Indices

Overall Weekend Records Daily Records Miscellaneous Records

Top Lifetime Grosses

Worldwide ▾ Data as of Sep 30, 15:22 PDT ← Previous page 1-200 of 1,000 Next page →

Rank	Title	Worldwide Lifetime Gross	Domestic	International	Release Year		
1	Avatar	\$2,847,246,203	\$1,535,621,221	\$676,507,625	2009		
2	Avengers: Endgame	\$2,797,501,328	\$858,373,000	30.7%	\$1,939,128,328	69.3%	2019
3	Titanic	\$2,201,647,264	\$659,363,944	30%	\$1,542,283,320	70%	1997
4	Star Wars: Episode VII - The Force Awakens	\$2,069,521,700	\$936,662,225	45.3%	\$1,132,859,475	54.7%	2015
5	Avengers: Infinity War	\$2,048,359,754	\$678,815,482	33.1%	\$1,369,544,272	66.9%	2018
6	Jurassic World	\$1,670,516,444	\$652,385,625	39%	\$1,018,130,819	61%	2015
7	The Lion King	\$1,667,635,327	\$543,638,043	32.6%	\$1,123,997,284	67.4%	2019
8	The Avengers	\$1,518,815,515	\$623,357,910	41%	\$895,457,605	59%	2012
9	Furious 7	\$1,515,341,399	\$353,007,020	23.3%	\$1,162,334,379	76.7%	2015
10	Frozen II	\$1,450,026,933	\$477,373,578	32.9%	\$972,653,355	67.1%	2019
11	Avengers: Age of Ultron	\$1,402,809,540	\$459,005,868	32.7%	\$943,803,672	67.3%	2015
12	Black Panther	\$1,347,597,973	\$700,426,566	52%	\$647,171,407	48%	2018
13	Harry Potter and the Deathly Hallows: Part 2	\$1,342,321,665	\$381,409,310	28.4%	\$960,912,355	71.6%	2011
14	Star Wars: Episode VIII - The Last Jedi	\$1,332,698,830	\$620,181,382	46.5%	\$712,517,448	53.5%	2017
15	Jurassic World:	\$1,310,466,296	\$417,719,760	31.9%	\$892,746,536	68.1%	2018

EACH MOVIE LINK

Domestic International Worldwide Calendar All Time Showdowns Indices

Avatar (2009)

A paraplegic Marine dispatched to the moon Pandora on a unique mission becomes torn between following his orders and protecting the world he feels is his home.

IMDbPro

- Cast information
- Crew information
- Company information
- News
- Box office
- Franchise rankings ▾
- Genre keyword rankings ▾

Title Summary All Releases ▾

All Releases	Domestic Distributor	Twentieth Century Fox See full company information
DOMESTIC (26.7%) \$760,507,625	Domestic Opening	\$77,025,481
INTERNATIONAL (73.3%) \$2,086,738,578	Budget	\$237,000,000
WORLDWIDE \$2,847,246,203	Earliest Release Date	December 16, 2009 (EMEA, LATAM)
	MPAA	PG-13
	Running Time	2 hr 42 min
	Genres	Action Adventure Fantasy Sci-Fi
	IMDbPro	See more details at IMDbPro

Performance Cast and Crew All-Time Rankings Related Stories Similar Movies

By Release

Release Group	Rollout	Markets	Domestic	International	Worldwide
Original Release	December 16-January 15, 2010	77 markets	\$749,766,139	\$1,993,811,448	\$2,743,577,587
2010 Special Edition	August 26-October 13, 2011	50 markets	\$10,741,486	\$34,097,062	\$44,838,548
2020 Re-release	August 20-December 4, 2020	APAC	-	\$1,263,659	\$1,263,659
2021 Re-release	March 12, 2021	China	-	\$57,566,409	\$57,566,409

DATA

● TARGET

→ Original Release Worldwide Gross

● DATA

* 1000 movies scraped

♦ 800 viable movie data points

● FEATURES

- Budget
- Genre
- Running Time
- MPAA Rating
- Year of Release
- Domestic Opening

RESULTS

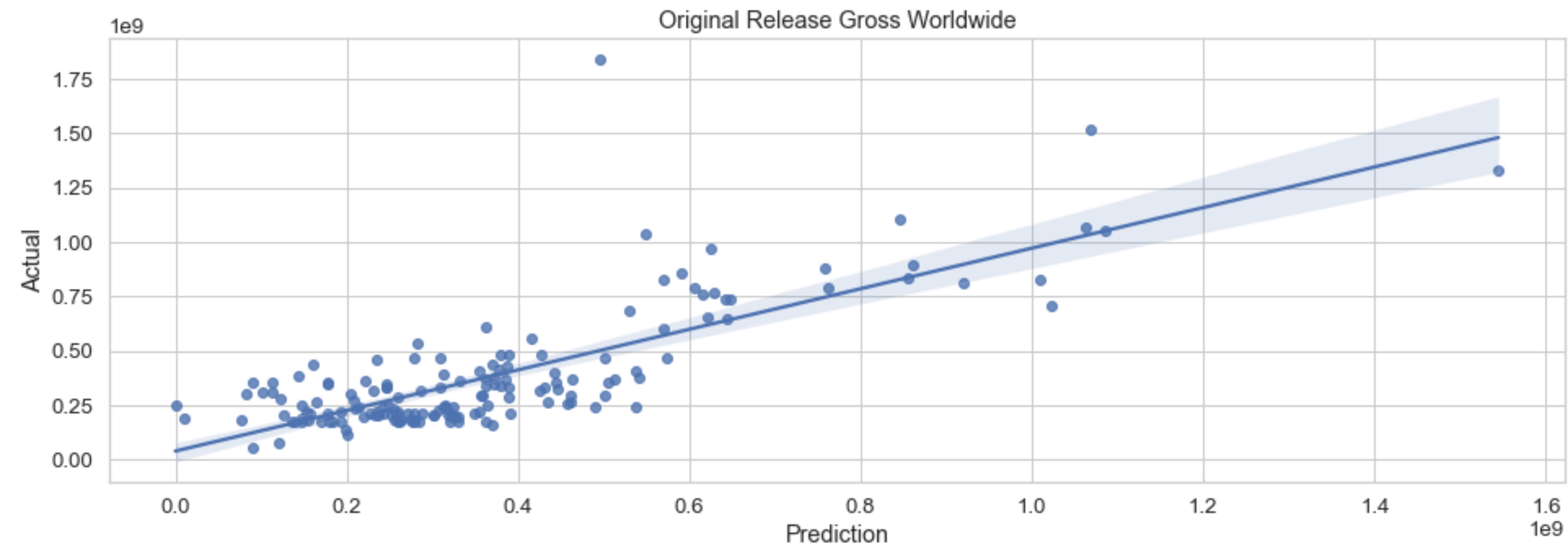


PREDICTED VS ACTUAL

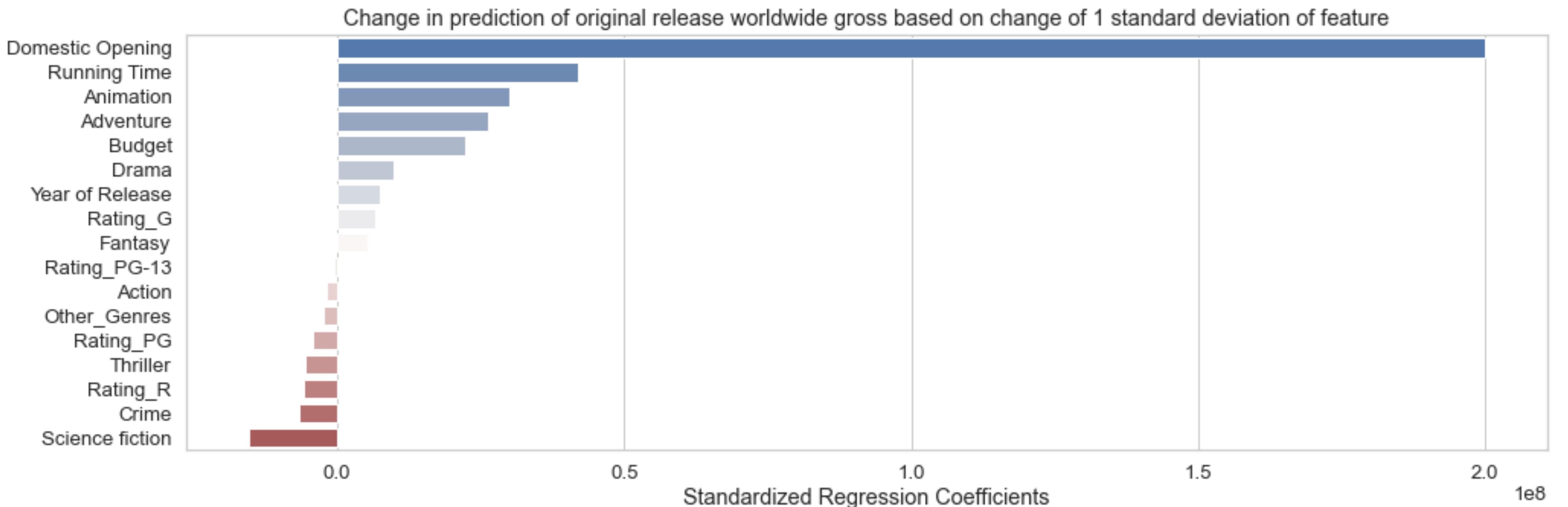
$R^2 = 0.602$

MAE = \$114,845,151

ACTUAL WORLDWIDE GROSS (ORIGINAL RELEASE) : \$52,700,000 - \$2,797,501,000



FEATURE COEFFICIENTS (STANDARDIZED)



FUTURE TAKES

◦ IMPROVE MODEL

- Metric :
higher R^2 , lower MAE
- Add more features:
such as month of release
Distributor company
- More data and feature engineering

◦ EXPAND STUDY

- Scrape a lot more movies
- expand study to all movies



*The
End*