

Sentiment Analysis on Movie Review

We are going to classify the review data into two categories which are negative and positive.

Content

- Crawling data
- Clean Data
- Train Model
- Test Model
- Result

Library used

- rvest
- RTexttools
- e1071
- T M
- stringr
- SnowballC
- rpart
- textstem
- lexicon
- pacman

Crawling



1. **Alien: Covenant** (2017)

R | 122 min | Horror, Sci-Fi, Thriller



★ [Rate this](#)

66 Metascore

The crew of a colony ship, bound for a remote planet, discover an uncharted paradise with a threat beyond their imagination, and must attempt a harrowing escape.

Director: [Ridley Scott](#) | Stars: [Michael Fassbender](#), [Katherine Waterston](#), [Billy Crudup](#), [Danny McBride](#)

Votes: 49,200 | Gross: \$36.00M



[See all 631 user reviews](#) »

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[Index](#) 631 reviews in total

471 out of 710 people found the following review useful:



Nonsical plot and stupid characters ruin it all.

★ ★ ★ ★ ★ ★ ★ ★ ★ ★

Author: [kuuk3](#) from United Kingdom

13 May 2017

*** This review may contain spoilers ***

Spoilers. This film is a complete mess.

1. There is a ship full off over 1000 sleeping passengers. Yet they have just one android to look after it all. ' don't age and surely you need a backup.

	title	rating	review_rating	review
1	Alien: Covenant (2017)	6.9	1	Spoilers. This film is a complete mess.1. There is a sh...
2	Alien: Covenant (2017)	6.9	6	This movie is a result from corporate decision making...

Clean data

- Remove stop word
- Lemmatizing
- Lower case

Before cleaning

[1] "\"I remember watching this film a while ago and after seeing 3000 miles to Graceland, it all came flooding back. Why this hasn't had a Video or DVD release yet? It's sacrilegious that this majesty of movie making has never been released while other rubbish has been. In fact this is the one John Carpenter film that hasn't been released. In fact i haven't seen it on the TV either since the day i watched it. Kurt Russell was the perfect choice for the role of Elvis. This is definitely a role he was born to play. John carpenter's break from horror brought this gem that i'd love the TV to play again. It is well acted and well performed as far as the singing goes. Belting out most of Elvis's greatest hits with gusto. I think this also was the film that formed the partnership with Russell and Carpenter which made them go on to make a number of great movies (Escape from New York, The Thing, Big trouble in little china, and Escape from L.A. Someone has got to release this before someone do... <truncated>

After cleaning

[1] "remember watch film ago see 3000 mile graceland come flood back video dvd release yet sacrilegious majesty movie make never release rubbish fact one john carpenter film release fact see tv either since day watch kurt russell perfect choice role elvis definitely role bear play john carpenter s break horror bring gem love tv play good act good perform far sing go belt elvis s great hit gusto think conjurer film form partnership russell carpenter make go make numb great movie escape new york thing big trouble little china escape l someone get release someone remake version life feel tarnish king conjurer ruin magic one get release gonna heartbreak hotel"

Train & Test Model Procedure

- Create Matrix of train data of review
- Create container of train data.
- Train model using SVM(Support Vector Machine)
- Put test data into list.
- Make document term matrix.
- Creates a container of document term matrix that can be used for the training model.
- Classify model by using container of test and train model.

Result

SVM predict based on that id review compare to the actual review rating.



	X	title	rating	review_rating	SVM_LABEL
1	1	13 Reasons Why<U+00A0>	8.7	3	negative
2	2	13 Reasons Why<U+00A0>	8.7	10	positive
3	3	13 Reasons Why<U+00A0>	8.7	3	negative
4	4	13 Reasons Why<U+00A0>	8.7	1	negative
5	5	13 Reasons Why<U+00A0>	8.7	2	negative
6	6	13 Reasons Why<U+00A0>	8.7	10	positive
7	7	13 Reasons Why<U+00A0>	8.7	1	negative
8	8	13 Reasons Why<U+00A0>	8.7	1	negative
9	9	13 Reasons Why<U+00A0>	8.7	10	positive
10	10	13 Reasons Why<U+00A0>	8.7	1	negative

Accuracy, Recall, and Precision

We check the model accuracy, recall and precision

We assumed that rating ≥ 7 should be classified as positive else negative

Accuracy $\sim 87\%$

```
> accuracy
[1] 0.8670886
> recall
[1] 0.9693878
> precision
[1] 0.8816705
```



More result

+

Snatched (2017)

R

1h 30min

Action, Comedy

12 May 2017 (USA)

★ 3.5 /10

☆ Rate This

This is the closest they've been in years.

Amy Poehler

Goldie Hawn

SNATCHED

Mother's Day Weekend

2:37

Trailer

22 VIDEOS

64 IMAGES

```
> accuracy
[1] 0.7943925
> precision
[1] 0.8837209
> recall
[1] 0.6909091
```

Accuracy~ 80%

	title	rating	review_rating	SVM_LABEL
1	Snatched (2017)	3.5	1	negative
2	Snatched (2017)	3.5	1	negative
3	Snatched (2017)	3.5	1	negative
4	Snatched (2017)	3.5	1	negative
5	Snatched (2017)	3.5	1	negative
6	Snatched (2017)	3.5	1	negative
7	Snatched (2017)	3.5	4	negative
8	Snatched (2017)	3.5	1	negative
9	Snatched (2017)	3.5	1	negative
10	Snatched (2017)	3.5	1	negative



★ Rate This

A close-up shot of Chris Pratt as Star-Lord, looking slightly to the side with a serious expression. A white play button icon is centered over his face. The background is dark and out of focus. At the bottom, there is a video player interface with a progress bar and controls. The text "2:21 | Trailer" is on the left, and "19 VIDEOS | 307 IMAGES" is on the right.

```
[1] 0.8908629
```

another people
 universe moment
 quill knownebula
 many not conjurer come
 look ego make scene enjoy
 original much vol new see peter russell
 play star even try character take show
 chris end lot galaxy first film like love team
 part give lot gunn story think gamora
 every family now will get galaxy movie feel joke
 rocket bad great good one time laugh cast
 planet thing drax guardian just say james
 want sequel marvel really watch way effect
 big little funny fun can watch back
 comic space work yondu villain baby may
 soundtrack seem