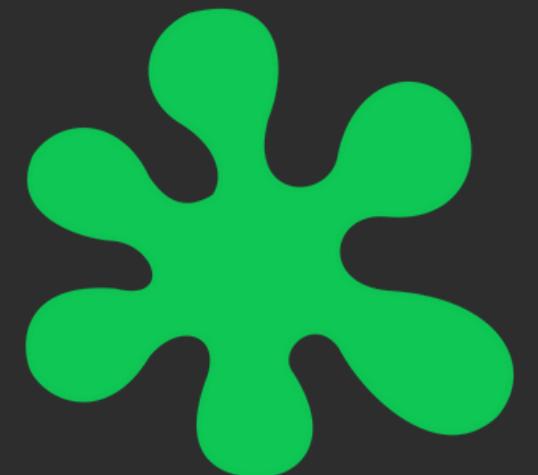
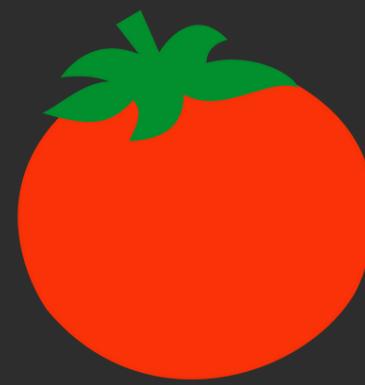


ROTTEN TOMATOES'S

REVIEW

CLASSIFICATION

BY USING MULTINOMIAL NAIVE BAYES CLASSIFIER



Introduction to Machine Learning 01418362

Krit Asawaniramol 6310450786

CITIC REVIEWS FOR DUNE: PART TWO

All Critics (411) | Top Critics (81) | Fresh (381) | Rotten (30)

 As a sequel, it works for the same reasons that make The Empire Strikes Back so many people's favourite Star Wars film: there's a darkness, a bleakness, that makes the fist-pumping moments feel all-the-more earned.

April 1, 2024 | Rating: 4/5 | [Full Review...](#)

 Philip De Semlyen
Time Out
★ TOP CRITIC

 There is little character development and it's not for the literal-minded – or anyone who has, despite their best efforts, paid some attention.

March 14, 2024 | [Full Review...](#)

 Deborah Ross
The Spectator
★ TOP CRITIC

 An epic and spectacular sci-fi allegory with mass appeal.

March 8, 2024 | Rating: 3.5/4 | [Full Review...](#)

 Dwight Brown
DwightBrownInk.com
★ TOP CRITIC

 Dune: Part Two is a must-watch epic sci-fi, visually stunning, adventure that could already be considered the best movie of the year.

April 2, 2024 | Rating: 9/10 | [Full Review...](#)

 Emmanuel Noisette
E-Man's Movie Reviews (YouTube)

 As different from the first film as [Ridley Scott's] Alien is to [James Cameron's] Aliens. Same stuff, totally different genre!

March 22, 2024 | [Full Review...](#)

 Tim Cogshell
FilmWeek (KPCC - NPR Los Angeles)
★ TOP CRITIC

 This was the best adaptation of a book that I've ever seen.

March 12, 2024 | Rating: A | [Full Review...](#)

 tt stern-enzi
WXIX-TV (Cincinnati, OH)
★ TOP CRITIC

 You know Villeneuve will get the spectacle right. The question is about the human drama... It almost all connected in Part Two.

March 8, 2024 | Rating: 2.5/5 | [Full Review...](#)

 Adam Kempenaar
Filmspotting
★ TOP CRITIC

 ...rich in multilayered world-building. While its dense story might leave some cold, this is a movie meant for big-screen grandeur, from the detailed costumes to the cinematography, special effects, and score.

April 1, 2024 | [Full Review...](#)

 Valerie Kalfrin
AWFJ.org

ROTTEN TOMATOES



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TRENDING ON RT Monkey Man Civil War Godzilla X Kong: The New Empire Play Movie Trivia



IN THEATERS STREAMING MOVIES TV SHOWS

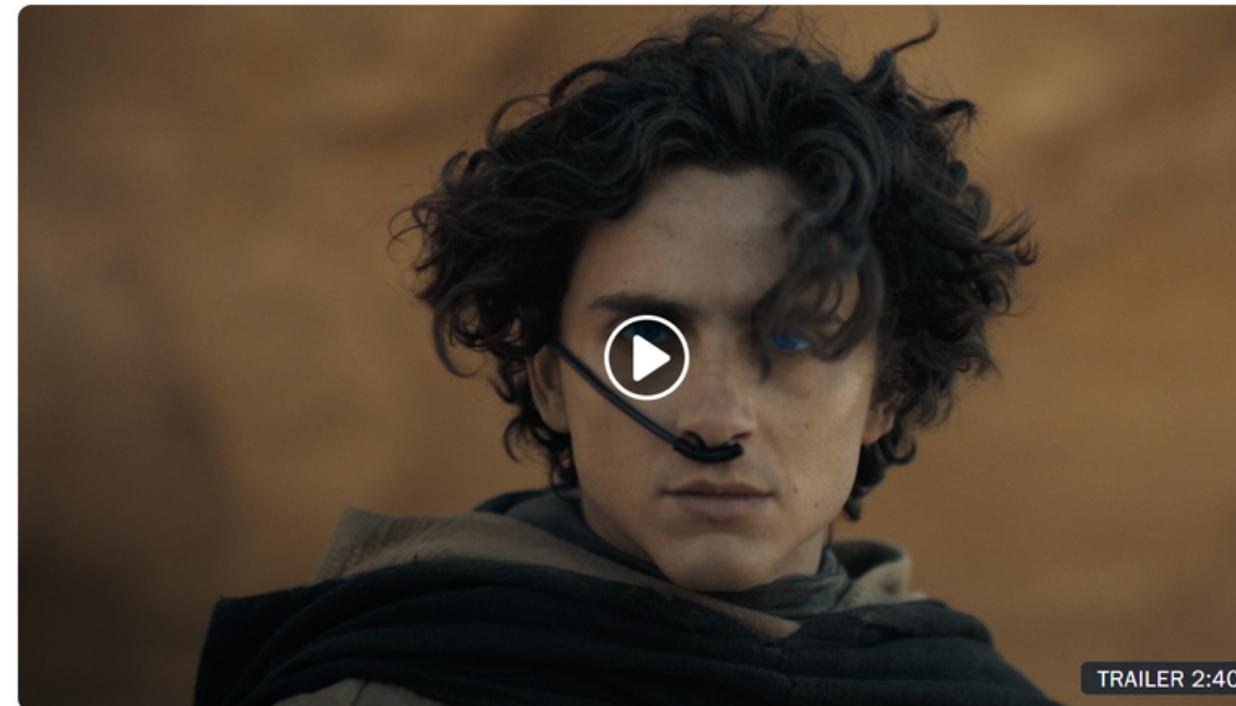
 60%	Someone Like You
 100%	Música
 --	IRaH
 --	Kalvan
 92%	Monkey Man
 --	The First Omen
 83%	The Beast
 97%	The People's Joker
 92%	Parachute
 94%	Girls State
 94%	Housekeeping for Beginners
 79%	The Old Oak
 --	Strictly Confidential
 84%	Coup de Chance
 92%	Chicken for Linda!

[View All](#)

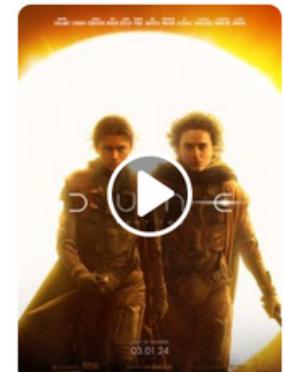
COMING SOON

 --	Food, Inc. 2	Apr 09
 --	Intermedium	Apr 09
 95%	Indigo Girls: It's Only Life ...	Apr 10
 --	Bade Miyan Chote Miyan	Apr 10
 --	SUGA: Agust D Tour D-Da...	Apr 10

[View All](#)



TRAILER 2:40



DUNE: PART TWO

PG-13 2024, Sci-Fi/Adventure, 2h 46m



93%
TOMATOMETER
411 Reviews

95%
AUDIENCE SCORE
5,000+ Verified Ratings

2

PROJECT GOALS

สามารถจำแนกได้ประเภทของบกิจารณ์ของนักวิจารณ์ได้ว่าเป็นในเชิงบวก (fresh) หรือเป็นในเชิงลบ (rotten) ได้อย่างถูกต้อง

แหล่งข้อมูลและ ALGORITHM ที่นำมาใช้

01

แหล่งที่มาของข้อมูล (DATASET)

Kaggle “Rotten Tomatoes Reviews”

- ชุดข้อมูลมีทั้งหมด 480,000 samples
- ในโปรเจคนี้นำมาใช้เพียง 40,000 samples โดยแบ่งเป็น
 - บทวิจารณ์ที่เป็น fresh 20,007 samples
 - บทวิจารณ์ที่เป็น rotten 19,993 samples

02

ALGORITHM ที่นำมาใช้

Naive Bayes classifier for multinomial models.

4

scikit learn

Install User Guide API Examples Community More ▾

Number of mislabeled points out of a total 15 points : 4

Prev Up Next

scikit-learn 1.4.1

Other versions

Please cite us if you use the software.

1.9.2. Multinomial Naive Bayes

`MultinomialNB` implements the naive Bayes algorithm for multinomially distributed data, and is one of the two classic naive Bayes variants used in text classification (where the data are typically represented as word vector counts, although tf-idf vectors are also known to work well in practice). The distribution is parametrized by vectors $\theta_y = (\theta_{y1}, \dots, \theta_{yn})$ for each class y , where n is the number of features (in text classification, the size of the vocabulary) and θ_{yi} is the probability $P(x_i | y)$ of feature i appearing in a sample belonging to class y .

The parameters θ_y is estimated by a smoothed version of maximum likelihood, i.e. relative frequency counting:

$$\hat{\theta}_{yi} = \frac{N_{yi} + \alpha}{N_y + \alpha n}$$

where $N_{yi} = \sum_{x \in T} x_i$ is the number of times feature i appears in a sample of class y in the training set T , and $N_y = \sum_{i=1}^n N_{yi}$ is the total count of all features for class y .

The smoothing priors $\alpha \geq 0$ accounts for features not present in the learning samples and prevents zero probabilities in further computations. Setting $\alpha = 1$ is called Laplace smoothing, while $\alpha < 1$ is called Lidstone smoothing.

តំណែងប្រចាំសប្តាហ៍

Label	Review
fresh	Manakamana doesn't answer any questions, yet ...
fresh	Wilfully offensive and powered by a chest-thu...
rotten	It would be difficult to imagine material mor...
rotten	Despite the gusto its star brings to the role...
rotten	If there was a good idea at the core of this ...

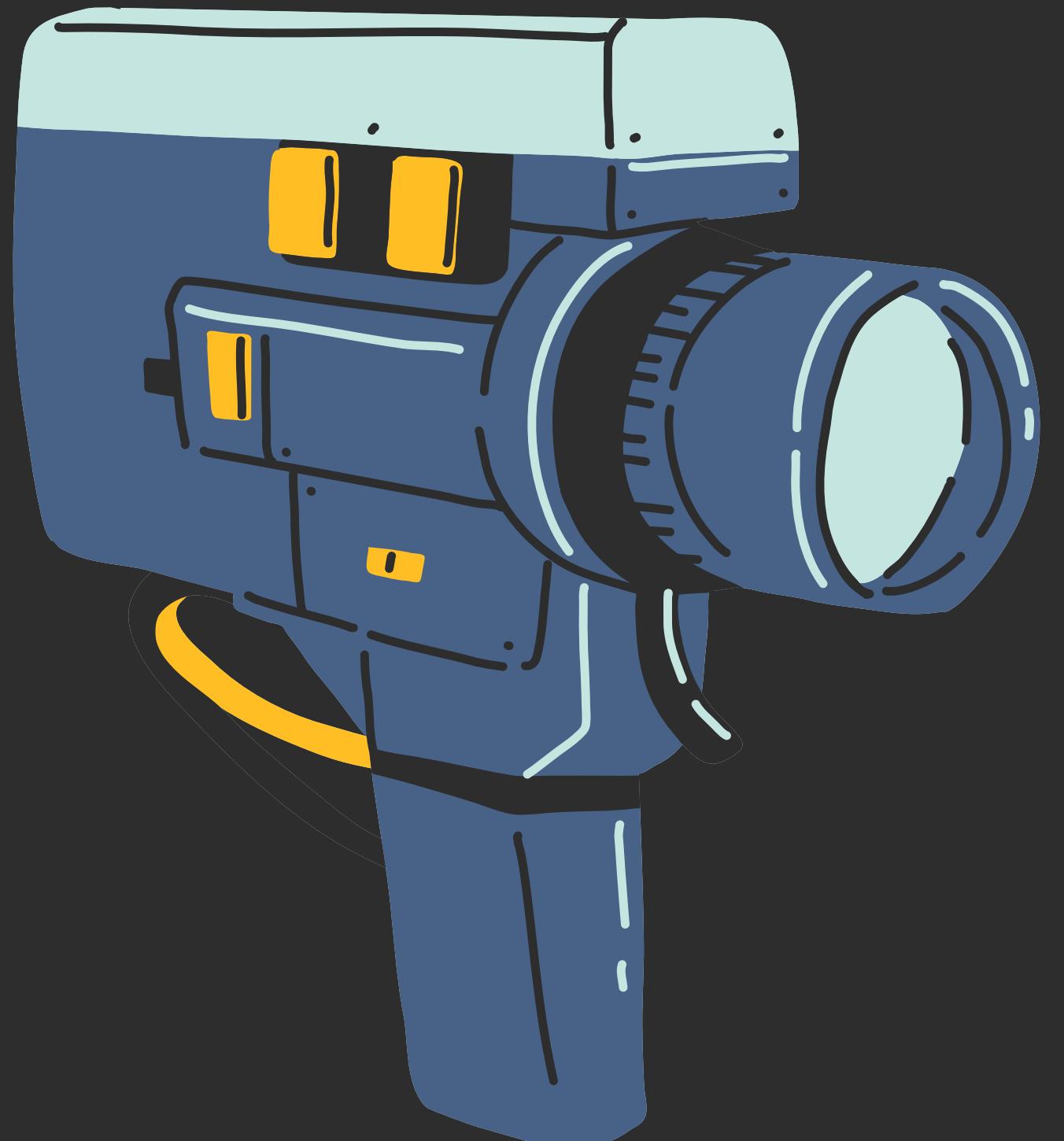
การนำโมเดลไปใช้งาน

```
testData = [
    ["Godzilla X Kong: The New Empire is a fun, albeit flawed, addition to the Monsterverse.", "fresh"],
    ["As much fun as it is to watch the Titans fight... at some point you go like: 'what's the point of this'.", "rotten"]
]
predict(testData)
```

✓ 0.0s

Answer: fresh , Predict: fresh | correct

Answer: rotten , Predict: rotten | correct



DEMO CODE



8



**THANK YOU FOR
LISTENING!**