

Sentiment Analysis on Covid-19 tweets

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TEAM-38

NAME	ROLLNO	BRANCH
Suvidha	19wh1a0579	CSE
Teja Sri	19wh1a1237	IT
Rajani	19wh1a1241	IT
Srinidhi	19wh1a05b3	CSE
Lahari	19wh1a0590	CSE

Introduction

Combine the data from two datasets:

- COVID-19 Vaccines Tweets and
- COVID-19 World Vaccination Progress

to understand how progress of vaccination programmes around the World (or in a specific country) is received by the public, as reflected in the tweets about all vaccines.

Approach

Tasks to be performed

- 1 Study the subjects of tweets about the vaccine.
- 2 Perform various NLP tasks on the data set.
- 3 To understand relation between public vaccination programs actions and public reception.
- 4 Bring useful insights.

Progress

- Data Preprocessing
- Exploratory Data Analysis
- Cleaning the text
- ULMFiT Approach

Learnings

- Exploratory Data Analysis
- Natural Language Processing
- Transfer learning in NLP

Tech Stack

- Tex Maker
- Google Colaboratory
- Git Lab
- **Libraries:** pandas, numpy, matplotlib, seaborn, nltk, TextBlob, Wordcloud, PyTorch, Transformers, fastai

References

- <https://analyticsindiamag.com/top-8-pre-trained-nlp-models-developers-must-know/>
- <https://pytorch.org/>
- <https://www.fast.ai/>

GIT Repo

The screenshot shows the GitLab interface for a repository named 'Covid-19 Vaccine Tweets'. The left sidebar contains navigation links: Project overview, Details, Activity, Releases, Repository, Issues (0), Merge requests (0), CI/CD, Security & Compliance, Operations, Packages & Registries, and Collapse sidebar. The main content area shows the repository details, including the project ID (25739765), commit count (6), branch count (1), tag count (0), file count (9 MB), and storage count (9 MB). A description states: 'Study the relationship between the vaccination progress and the discussions in social media (from the tweets) about the vaccines.' Below this is a commit history table with columns: Name, Last commit, and Last update. The table lists three commits: .ipynb_checkpoints, Notes, and Covid-19 Vaccination.ipynb, all updated 5 days ago. The repository is currently on the master branch, and the selected file is covid-19-vaccine-tweets. The README file is highlighted, showing it was updated 5 days ago by M Srinidhi. The repository has no license and all rights are reserved.

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Covid-19 Vaccine Tweets Project ID: 25739765

6 Commits 1 Branch 0 Tags 9 MB Files 9 MB Storage

Study the relationship between the vaccination progress and the discussions in social media (from the tweets) about the vaccines.

master covid-19-vaccine-tweets / + History Find file Web IDE Clone

Update README.md M Srinidhi authored 5 days ago b292c356

README No license. All rights reserved

Name	Last commit	Last update
.ipynb_checkpoints	Add Jupyter Notebooks	5 days ago
Notes	Add documents in Notes folder	5 days ago
Covid-19 Vaccination.ipynb	Add Jupyter Notebooks	5 days ago

C Covid-19 Vaccine Tweets

Project overview

Details

Activity

Releases

 Repository

 Issues

①

19 Merge requests

0

CI/CD

Security & Compliance

 Operations

Packages & Registries

« Collapse sidebar










Update README.md

M Srinidhi authored 5 days ago


b292c356

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Name	Last commit	Last update
 .ipynb_checkpoints	Add Jupyter Notebooks	5 days ago
 Notes	Add documents in Notes folder	5 days ago
 Covid-19 Vaccination.ipynb	Add Jupyter Notebooks	5 days ago
 Covid-19.ipynb	Add Jupyter Notebooks	5 days ago
 README.md	Update README.md	5 days ago
 country_vaccinations.csv	Add Covid-19 world vaccination progress da...	5 days ago
 vaccination_all_tweets.csv	Add vaccine tweets dataset	5 days ago

[📄 README.md](#)

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Covid-19 Vaccine Tweets

Project overview

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Security & Compliance

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Collapse sidebar

Covid-19 Vaccine Tweets

The aim is to understand how sentiment toward vaccination evolved, as reflected in the tweets, in parallel with vaccination progress.

The Covid-19 vaccines used in a large scale that are discussed in the recent tweets are:

- Pfizer/BioNTech
- Sinopharm
- Sinovac
- Moderna
- Oxford/AstraZeneca
- Covaxin
- Sputnik V

To perform tasks such as:

- Study the subjects of recent tweets about the vaccine made by various producers
- Perform various NLP tasks on this data source (topic modelling, sentiment analysis):
- Using the COVID-19 World Vaccination Progress dataset to understand relationship between public vaccination programmes actions and public reception.
- Bring useful insights

Perform sentiment analysis on the tweets looking to things like:

Aim for the week

- Fine-tune the language model
- Insights on Covid-19 vaccination progress.

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*Thank
you!*