TOP

(Fake News Classification)

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Pray for PALESTINE

Problem statement:

Fake news has become a threat in the digital age. Spreading like wildfire online, it shows discord and mistrust.

Fake news can reduce trust in society. People exposed to fake news are more likely to believe false information, leading to a decline in shared reality. This can deepen social divisions, as people on opposite sides of an issue rely on unverified sources, making it harder to have productive conversations.

Solution:

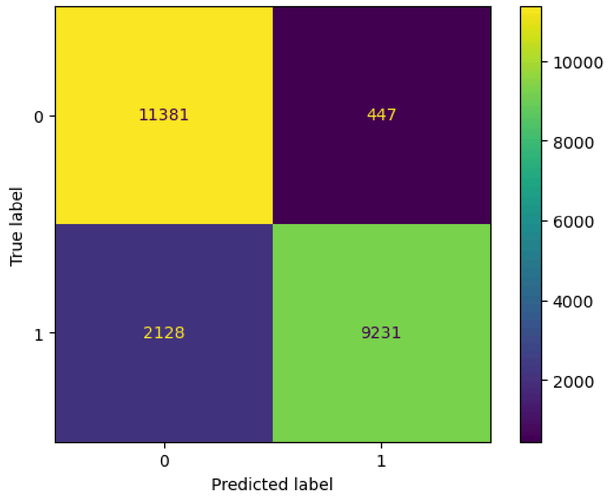
TOP tackles the problem above. Powered by a cloud-deployed machine learning model, TOP identifies fake news articles. Developers can integrate TOP's functionality via a developer-friendly API, while everyday users leverage a web app and browser extension for on-the-go classification.

Machine learning:

To begin solving the problem we begin developing the machine learning model. We gathered our 150K dataset from different sources. clean it and remove the inappropriate features, apply Natural Language Processing techniques (remove stop-words, make the words in lower case, expand contractions, lemmatize).

Apply TF-IDF to each word in the dataset and calculate the weights. split the features into training set and test set with a test set size of 20%.

then we fit the Decision Tree model by the features, with a final accuracy of 88%.

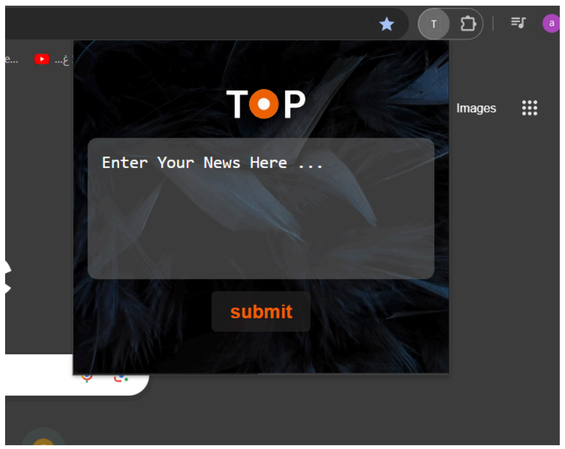


TOP API:

A user-friendly API (Application Programming Interface) acts as the bridge, allowing integration with various applications. This empowers developers to incorporate fake news classification functionality into their creations. Developed by FastAPI and published to the cloud by KOYEB platform and added to RapidAPI's hub.

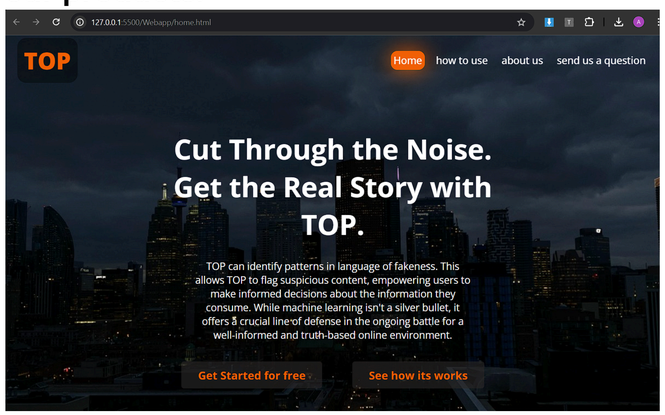
Extension:

A Chrome extension that makes it easy for classification. Submit a suspicious text, and the extension sends a request to our published API, and receives real-time classification results.

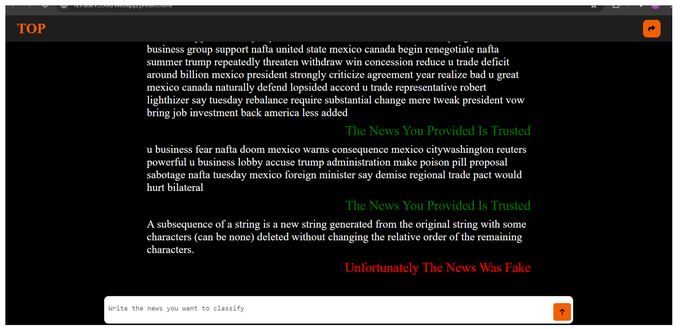


Web Application:

A user-friendly web application that can be accessed to detect any suspicious text, it has a home page where you can view our TOP API documentation and our tutorials for our products.



You can access the classification page where you can submit a text, and the web app sends a request to our published API and receives real-time classification results displayed on your screen.



Test our API