

BUILDATHON

Team Name - Cocktail

Project - Fake News Detection

[click here to run project](#)

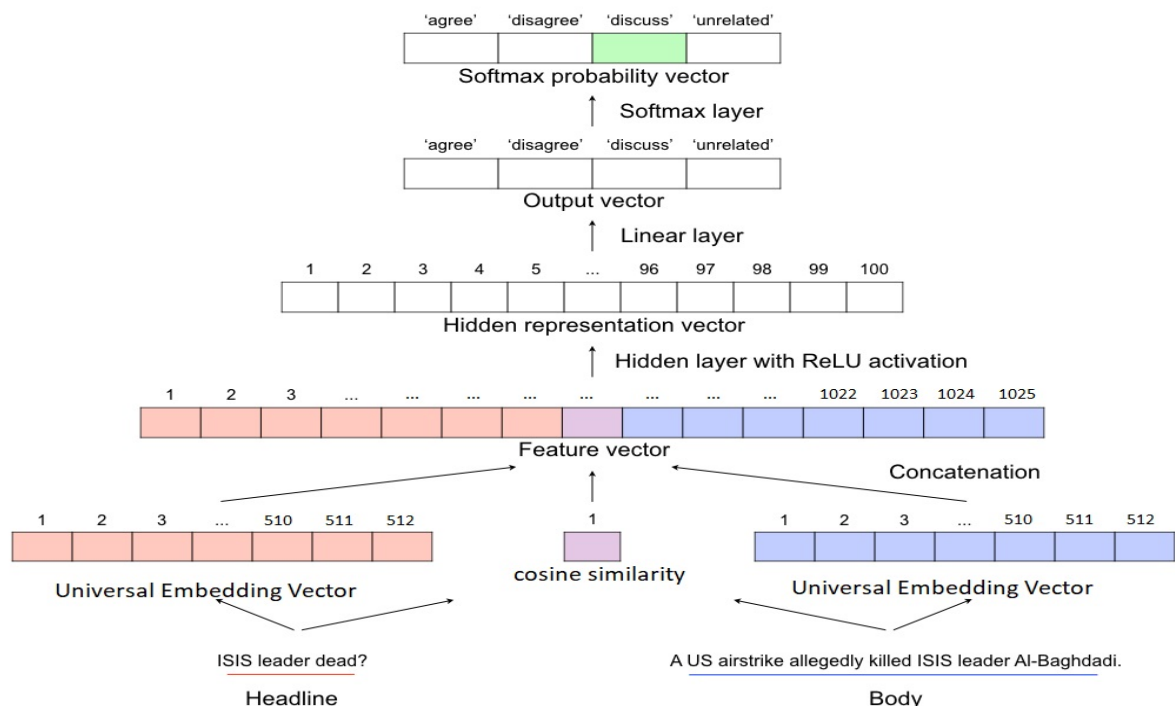
Here we create an easy-to-use system to detect the credibility of a user's claim or article, based on the concept of **stance detection**.

Pipeline -

1. Users input a claim like "Obama is not a US citizen".
2. Our program will search in the database for thousands of articles related to the keywords.
3. We run those articles through our home-grown stance detection machine learning model which will determine each article's relevance to the claim and its stance on it. We determine if an article **agrees/disagrees/is-neutral/is-unrelated** to the input claim.
4. We then access our ever-evolving database of source reputability. If lots of reputable sources all agree with your claim, then it's probably true!
5. Then we cite our sources so our users can click through and read more about that topic!

Model Preparation -

1. Encode article headline and article bodies separately.
2. Encode our text into embedding having 512 features using **Universal Embedding Encoder**.
3. Find the **cosine similarity** of article headline embedding and article bodies embedding.
4. Merge article headline embedding , cosine similarity , article body embedding into single vector.
5. Now train our model using this merged vector as input and stance as output.



6. Model is ready for prediction having accuracy of **87.6 percent**.

Technology Used -

1. **Model Preparation** - Deep Learning using keras tensorflow , Natural Language Preprocessing.
2. **Frontend** - HTML , CSS , Bootstrap
3. **Backend** - Nodejs , Google News Scraper , News API

Language Used -

1. Python for prepare model
2. Javascript for Backend/Frontend

Team Details -

S No.	Name	Branch	Year
1.	Tanmay Jain (Team Leader)	CSE	3rd Year
2.	Sarthak Jain	ECE	3rd Year

Snapshots -

The screenshot shows a web browser window with the URL `fake-news--detection.herokuapp.com`. The page has a dark blue header with the text "Fake News Detection". Below the header, there are two input fields: "Article Headline:" with a text input containing "headline", and "Article Body:" with a larger text area containing "text". Below these fields is a dark blue button labeled "Search Entities". At the bottom of the page, there is a light blue footer area with a text input containing "url" and a red button labeled "Search by Url". The browser's taskbar at the bottom shows various application icons and the system clock indicating 01:07.

My Drive - Google Drive x BUILDATHON - Google Docs x Heroku | Login x https://fake-news--detection.he x +

fake-news--detection.herokuapp.com

Fake News Detection

Article Headline: Himachal Pradesh extends night curfew in 4 d

Article Body: For the best experience use [inshorts](#) app on your smartphone The Himachal Pradesh government on Monday decided to continue with night curfew in four COVID-hit districts till January 5. The curfew will be in place from 9 pm to 6 am in Shimla, Mandi, [Kangra](#) and [Kullu](#), Parliamentary Affairs Minister Suresh Bhardwaj said. The state imposed a night curfew in these districts on November 24 as coronavirus cases increased. For the best experience use [inshorts](#) app on your smartphone

Search Entities


Agree

Windows taskbar: Search, Task View, File Explorer, Microsoft Store, Mail, Edge, Firefox, Chrome, Telegram, Zoom, WhatsApp, and system tray icons.

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fake-news--detection.herokuapp.com

<https://inshorts.com/en/news/himachal-pradesh-extends-> [Search by Url](#)



Himachal Pradesh extends night curfew in 4 districts till January 5

For the best experience use inshorts app on your smartphone The Himachal Pradesh government on Monday decided to continue with night curfew in four COVID-hit districts till January 5. The curfew will be in place from 9 pm to 6 am in Shimla, Mandi, Kangra and Kullu, Parliamentary Affairs Minister Suresh Bhardwaj said. The state imposed a night curfew in these districts on November 24 as coronavirus cases increased. For the best experience use inshorts app on your smartphone

Agree

Coronavirus: Himachal Pradesh Extends Night Curfew in 4 Districts Till Jan 5, Essential Services Allowed

Windows taskbar: Search, Task View, File Explorer, Microsoft Store, Mail, Edge, Firefox, Chrome, Telegram, Zoom, WhatsApp, and system tray icons.