

Basic Details of the Team and Problem Statement

PSID:KVH-003

Problem Statement Title:Advanced fake news detection system **Category:** Fake News/social media

Team Name: k-traps

Team Leader Name: Tanaya Shelkle

Institute Code (AISHE): C-33641

Institute Name: Veermata Jijabai Technological Institute (VJTI) Mumbai 400019

Idea/Approach Details

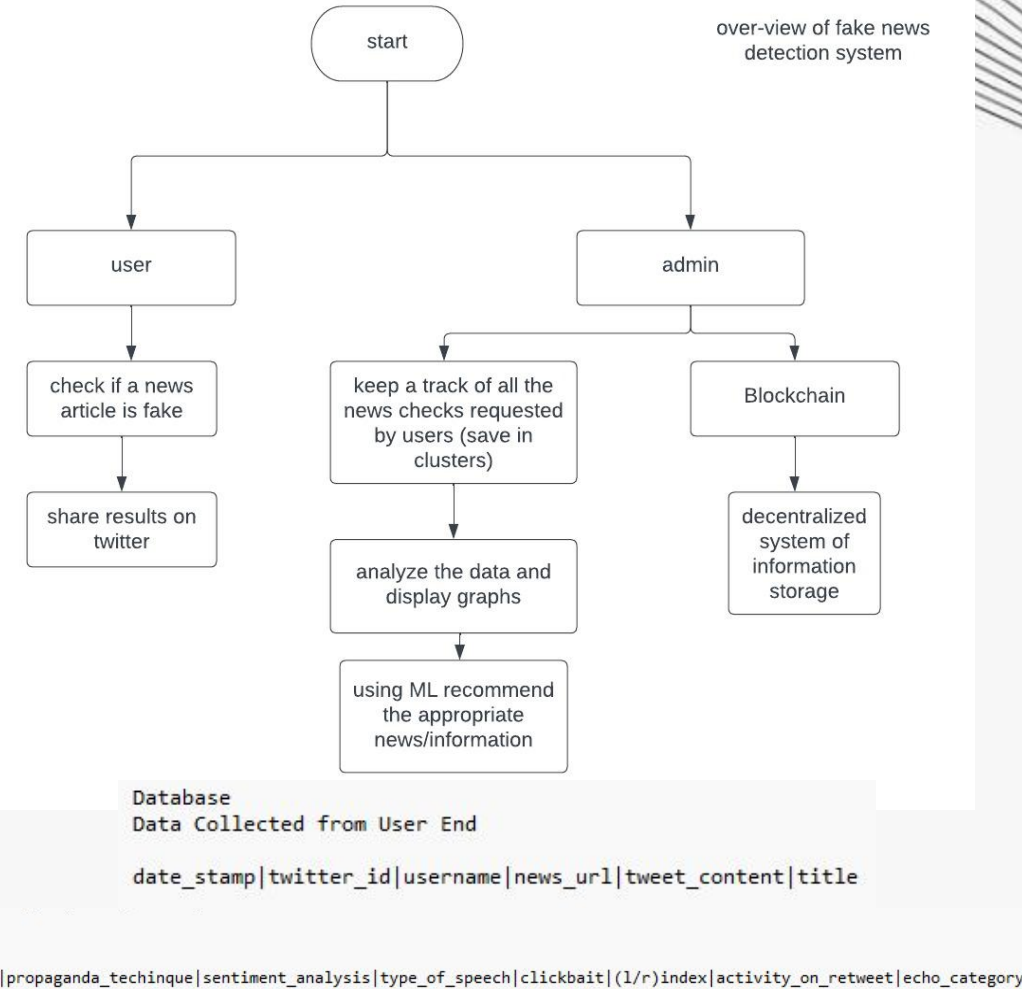
-OFFENCE :

- Fake News detection to support correct claims with statistics with relevant articles recommendations
- tracing the origin with the help of blockchain technology maintaining a decentralised system to maintain the spread of incorrect news
- analysis of fake news in terms of
 - category
 - sentiment analysis
 - clickbait
 - propaganda technique used
 - political ideology
 - possible impact and influence analysis
 - hatespeech

-DEFENCE :

- creating echo chambers networks to predict susceptibility of fake news origination and prevention by spreading the correct news to them first
- filter to prevent detected fake news and highly polarised news to reach the person
- **FILTER and RECOMMENDATION SYSTEM:**
Analysis of the tweet the twitter algorithm recommends on:
 - time spent of similar content
 - authenticity of the news
 - sentiment analysis
 - political ideology
 - propaganda technique used in tweet
 - possibility of it being a strategy for echo chamber recommendation

Then the filter mixes neutral news with 'correct'/polarised view-point to mitigate the impact of further spread and deliver correct information to the user



Describe your Technology stack here:

- Web Development,Blockchain,Machine Learning
- Tailwind CSS, Material UI ,Next JS,Node JS,Flask,Express ,Pytorch,HuggingFace

Idea/Approach Details

Describe your Use Cases here

- Checking the authenticity of a news article and backing it up with official government statistics and articles
- Filtering out and tracking Fake News and Misinformation on the multiple Social Media Platforms
- Maintaining the access to fake news to extremists and limiting the amount of hate-speech content on said social media platforms
- Using recommender systems to mitigate the impact of the spread of Fake News by auto-populating the fake news spreaders' inboxes with the official/authenticated news content by preemptive measures of echo chambers striking .
- Using Blockchain maintain a decentralized system of information that tracks fake news by keeping a system of checks and balances and maintaining integrity of the news and keeping record of visits to the fake news and subsequent behaviour change detected by our model for impact analysis

User can check authenticity of a news article and can share the related information on his/her social media platforms

Describe your Dependencies / Show stopper here

- Using Machine Learning Algorithms to perform zero-shot classification of information provided in the url by the user.data analysis and inference is done on category,hate-speech detection,clickbait analysis,activity of retweet etc.
- this is done to know the person's inference of the news and perform an impact analysis of his/her retweeting of said information
- Using Graph Neural Networks to do impact analysis by echo chambers creation and tracking of information spread in them,in case of a new controversy correct information in terms of posts is spread throughout the chamber to prevent the fake news from being spread.Alterng recommendations by removing fake-news and mixing posts of different viewpoints before recommending it to the user
- the blockchain idea is to maintain a decentralized system of information that tracks fake news by keeping a system of checks and balances and maintaining integrity of the news and keeping record of visits to the fake news and subsequent behaviour change detected by our model for impact analysis.
- further maintaining a thread of only fake news related to category to quickly detect in the webspectrum and take preemptive measures via echo chambers striking

Team Member Details

Sr. No.	Name of Team Member	Branch (Btech/Mtech/Ph D etc):	Stream (ECE, CSE etc):	Year	Position in team (Team Leader, Front end Developer, Back end Developer, Full Stack, Data base management etc.)
1	Tanaya Shelke	Btech	CSE	second	Team Leader
2	Pranav Janjani	Btech	CSE	second	ML
3	Adwait Mandge	Btech	CSE	second	Web Dev
4	Rohan Fatehchandka	Btech	CSE	second	Web Dev
5	Kunal Gaudani	Btech	CSE	second	Web Dev
6	Siddeshsingh Tanwar	Btech	CSE	second	Blockchain

Team Mentor/s Details

Sr. No.	Name of Mentor	Category (Academic/Industry):	Expertise (AI/ML/Blockchain etc):	Domain Experience (in Years)
1				
2				