FAKE NEWS DETECTION

Bhartiya miners

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SUMMARY OF OUR WORK

- Detecting Cross Modal Inconsistency to defend against Neural Fake News

- Implementation of a Multi-Modal Neural Fake News Detection System

- Analysis of Political Tweets

- Proposal for Clickbait Detection Module

- Web Scraping

- Contacting News Agencies

Fake NEWS

Fake News is the Spread of disinformation and hoaxes through different platforms. The imminent threat of such a widespread misinformation is obvious and hence we have looked into ways in which such Fake News can be identified with the help of Artificial Intelligence. Fake News Detection and analysis is an open challenge in AI!
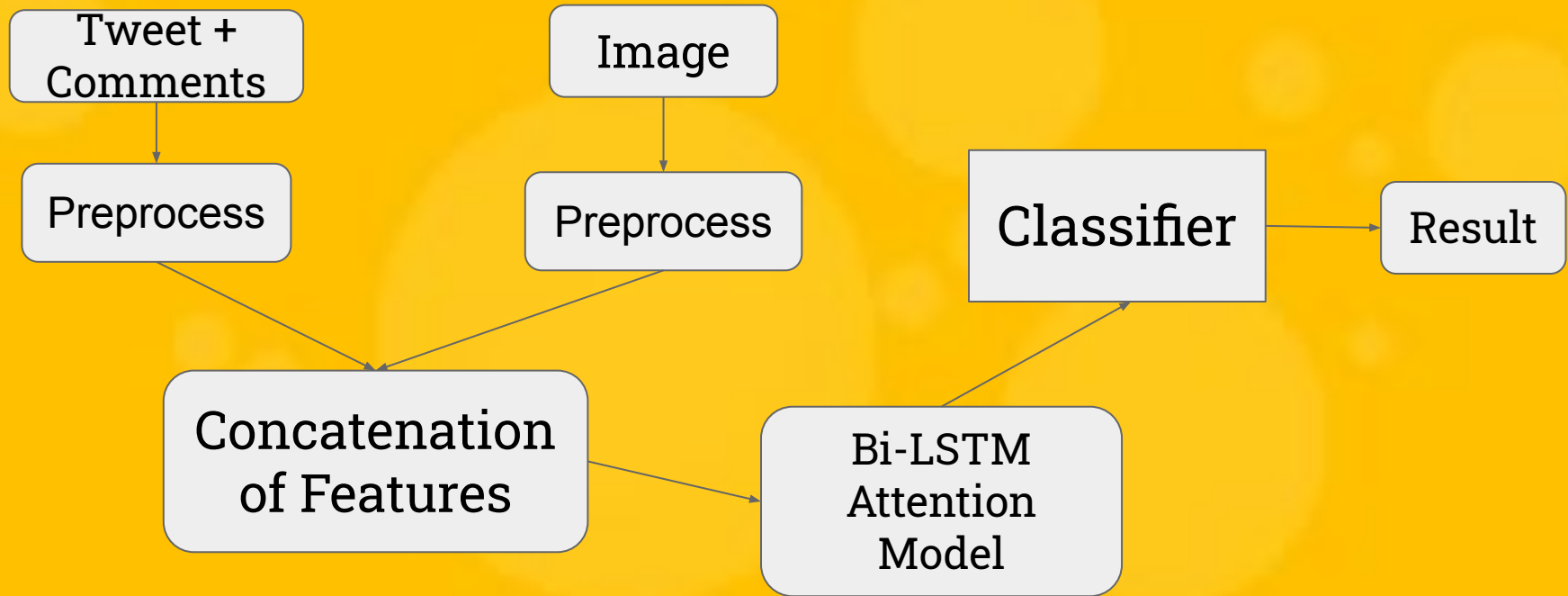
Types of Fake News:

- Clickbait
- Propaganda
- Misleading headings
- Manipulation
- Rumor Mill
- Misinformation
- Media Bias
- Audience Bias

Fake News detection using covid-19 data

- Model Description: Multi-modal Neural Fake News Detection

- Dataset: Weibo Dataset containing text, picture & comments

- Tasks done:

  - Convert text data to word vector by LSTM.

  - Extract feature vector of image data by CNN.

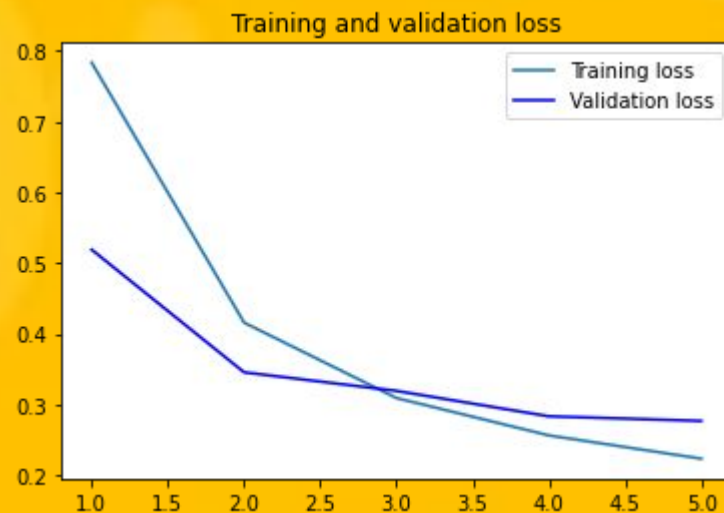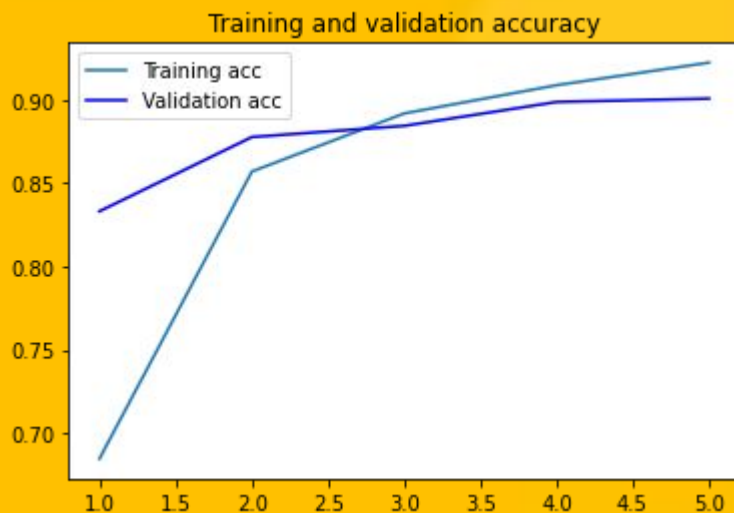 - Used Bi-LSTM+ATTENTION to improve the accuracy.

BLOCK DIAGRAM

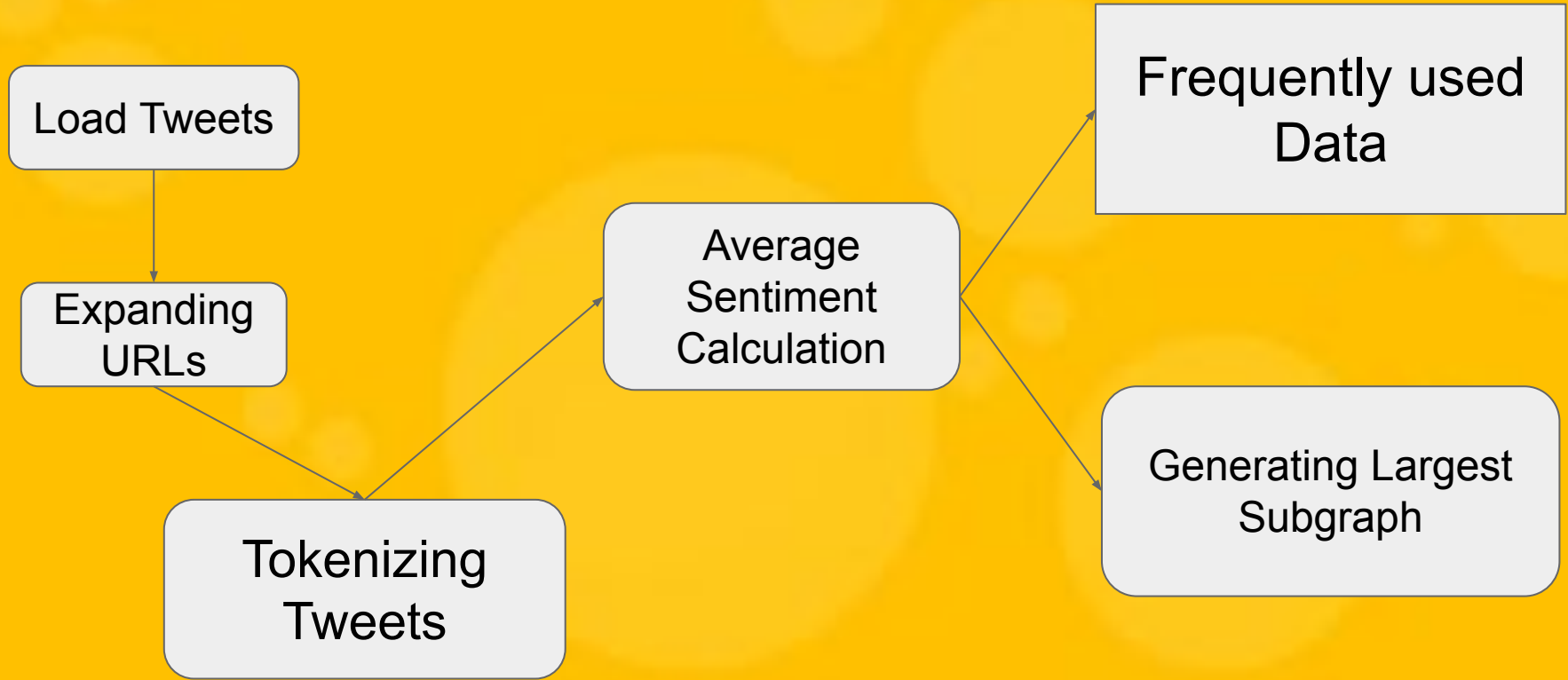# RESULTS

Training Accuracy   - 92.22%
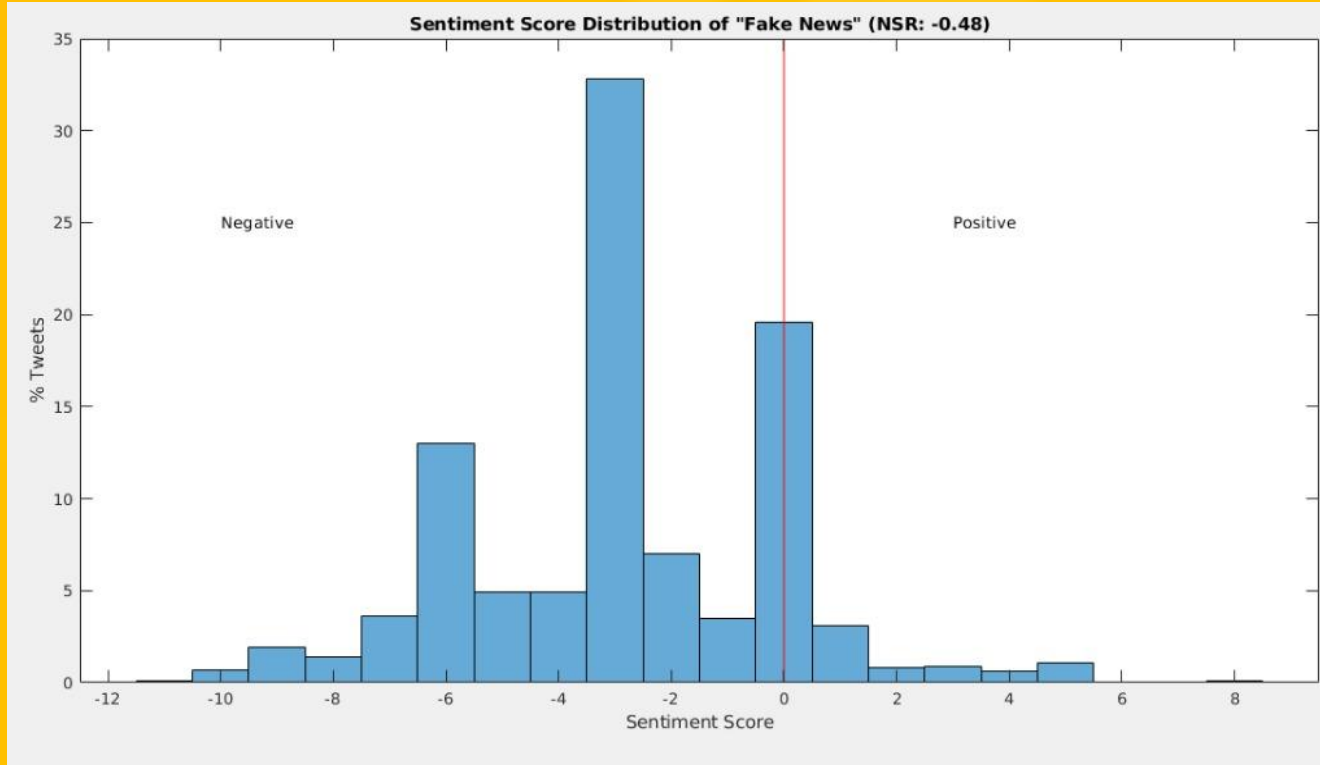Test Accuracy   - 90.06%

ANALYSIS OF FAKE-NEWS

- Tweet Containing Fake News

- Sentiment Score

- Frequently Used Data:

  - Cited Source
  - Mentions
  - Words
  - Cited Websites
  - Hashtags

- Largest Subgraph

BLOCK DIAGRAM

Load Tweets

Expanding URLs

Tokenizing Tweets

Average Sentiment Calculation

Frequently used Data

Generating Largest Subgraph

SENTIMENT SCORE
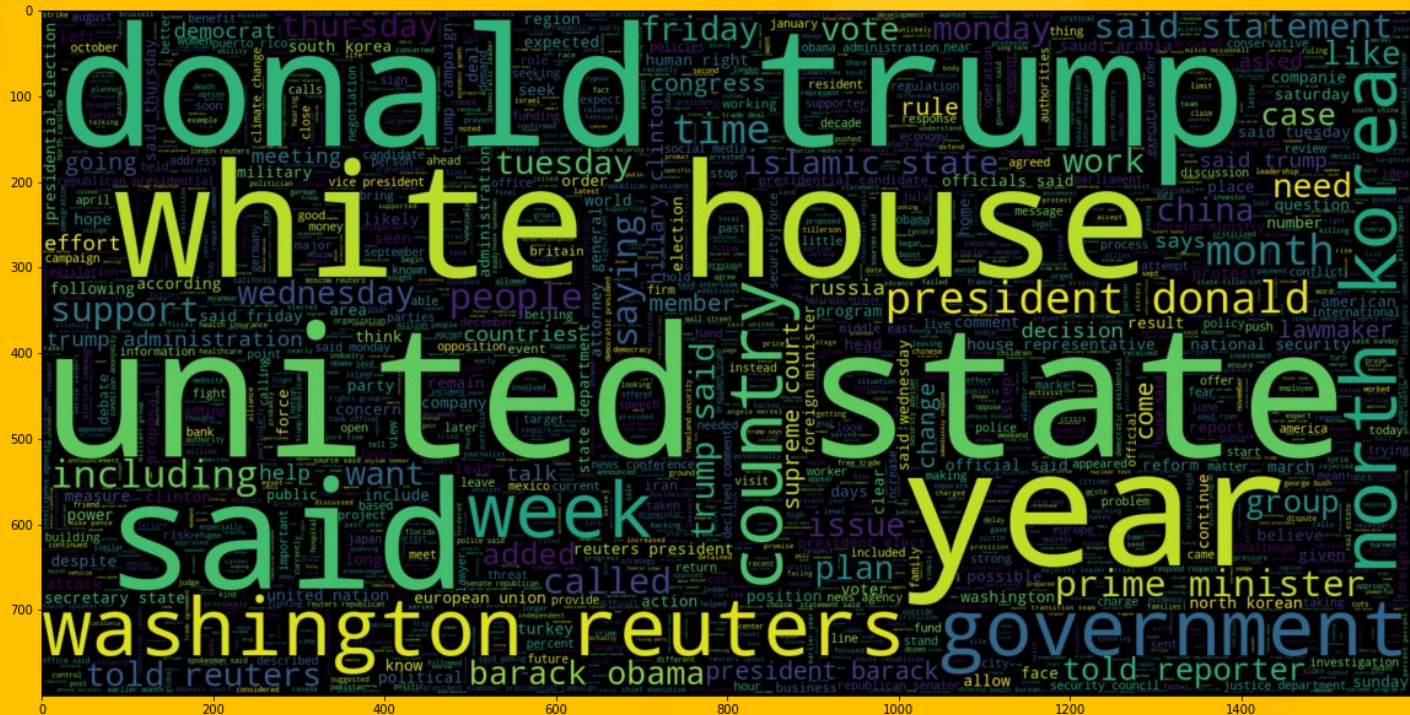

Sentiment Score Distribution of "Fake News" (NSR: -0.48)
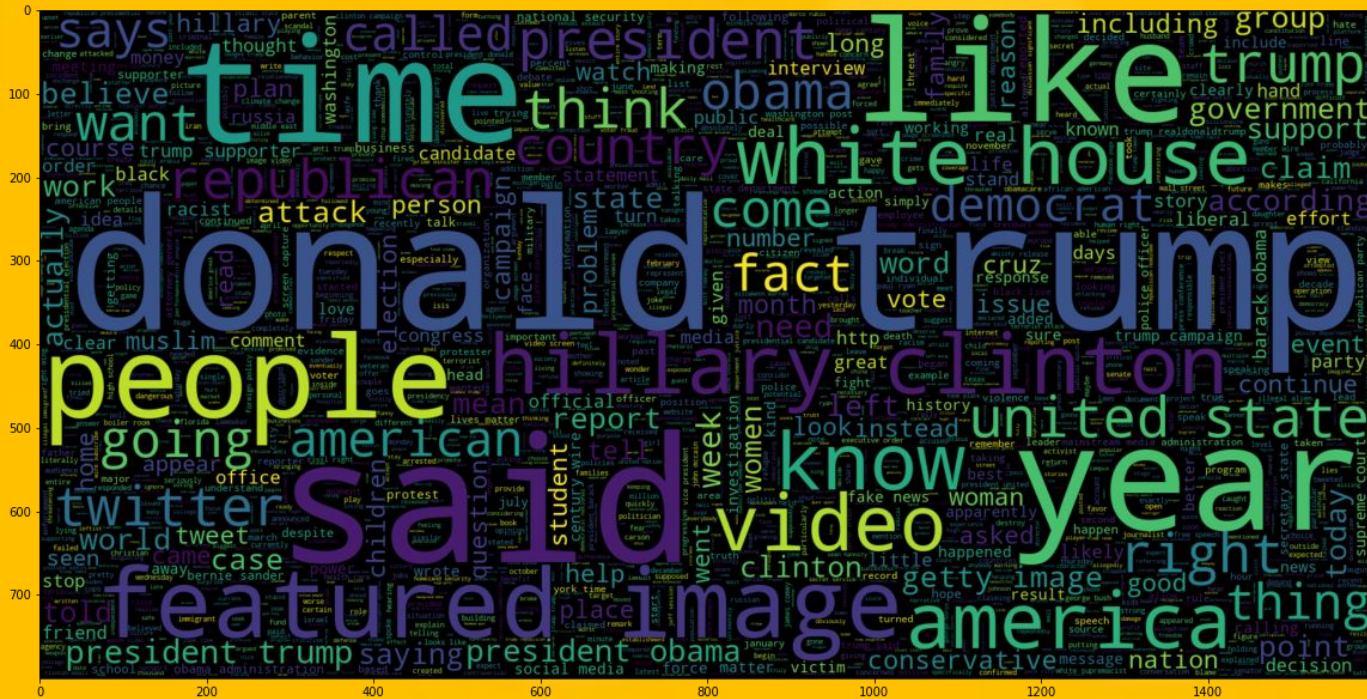
WORD CLOUD FOR REAL TWEETS

Word Cloud for Fake Tweets

EXTRA WORK

- Web Scraping

    - To Download Videos from media houses

    - Extracting the following information about any News Article using it's URL

        - Article's Title
        - Article's Text
        - Article's Summary
        - Article's Keywords

- Contacting News Agencies

    - The Lallantop

OUTPUT


```
aranya@aranya-Inspiron-5567:~/articles$ python3 article_downloader.py
[nltk_data] Downloading package punkt to /home/aranya/nltk_data...
[nltk_data]   Package punkt is already up-to-date!
Article's Title:
पड़ताल: हिंदू ने तोड़ी मंदिर की मूर्तियां, सुदर्शन टीवी औऱ सुरेश च्वह्वाण़के ने मुस्लिमों को निशाना बनाया
n
Article's Text:
इसी इलाके के रहने वाले महेश (भूत) को पुलिस ने त्वरित कार्रवाई करते हुए गिरफ़्तार कर लिया है. उसने कहा कि वो पर्याप्त बारिश ना होने की वजह से भगवान से नाराज़ था. इस दुख प्रकरण में कोई भी सांप्रदायिक कोण नहीं है.

Miscreant Mahesh@ Bhut (45yr), a resident of same locality, has been arrested in our prompt action. Says he was aggrieved on God due to inadequate rainfall. There is no communal angle in this unfortunate incident.@DelhiPolice

— DCP/Dwarka, Delhi (@DCPDwarka) April 13, 2021
n
Article's Summary:
इसी इलाके के रहने वाले महेश (भूत) को पुलिस ने त्वरित कार्रवाई करते हुए गिरफ़्तार कर लिया है.
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Miscreant Mahesh@ Bhut (45yr), a resident of same locality, has been arrested in our prompt action.
@DelhiPolice— DCP/Dwarka, Delhi (@DCPDwarka) April 13, 2021
n
Article's Keywords:
['ह', 'सम्प्रदायक', 'स', 'सरश', 'हन', 'मरत्य', 'मंदर', 'हए', 'इस', 'बनय', 'पड़ताल', 'dcpdwarka', 'क', 'hmiscreant', 'न', 'हद', 'सदरशन', 'मस्लम']
aranya@aranya-Inspiron-5567:~/articles$
```

FUTURE WORKS

- Add ResNet to the image feature extraction.

- Implementation & Integration of Clickbait Detection Model

- Creation of a dataset more relevant from the Indian Fake News Detection perspective

THANK YOU

OPEN FOR QUESTIONS