



## Project Presentation

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# MAIN OBJECTIVES

## Overview

Fake news detection is an application that can be used to determine whether a news is fake or not based on a dataset and specific AI algorithms that we have developed. The application can be used by either normal users to check whether the news they face in their daily life is fake or not. It can also be used by Organizations and Journalists for business needs.

## Objectives

1. Assemble a trusted dataset that can be depended on for the AI model
  2. Build strong AI algorithm that can be both trustworthy and fast
  3. Return accurate results for news integrity.
  4. Provide several options for users when checking if a news is fake. (E.g: the ability to enter the news details manually or fetch them from a URL)
  5. Each user should have a profile history with his previous news submissions
  6. Provide a trending fake news map to visualizes the percentage of fake news around different cities in the world.
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# FUNCTIONALITIES

## **1. Check if a news is fake**

Users should be able to submit news to check whether they are fake or not through a web interface by submitting the news title, subject and description.

## **2. Fetch news from a URL and check if its fake**

Users should have an option to fetch news from a URL then check for its integrity using the FND system.

## **3. Login**

Users can login to their account by entering their email and password

## **4. Register**

Users can register new accounts

## **5. Detection history**

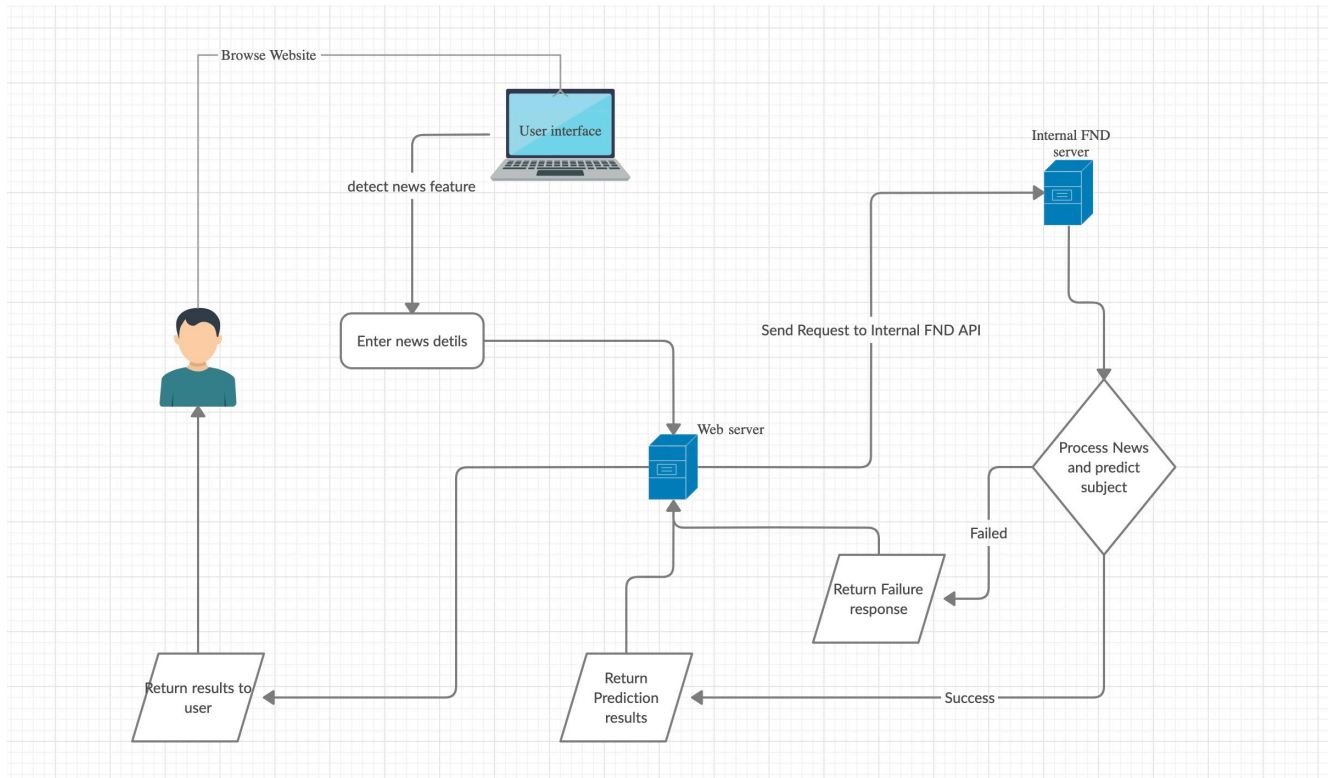
The system should store the user's news detection history and users should be able to access a list of their previous submissions in the history page.

## **7. Trending fake news map**

Users should be able to access a map that visualizes the percentage of fake news detected by the system around different cities in the world.

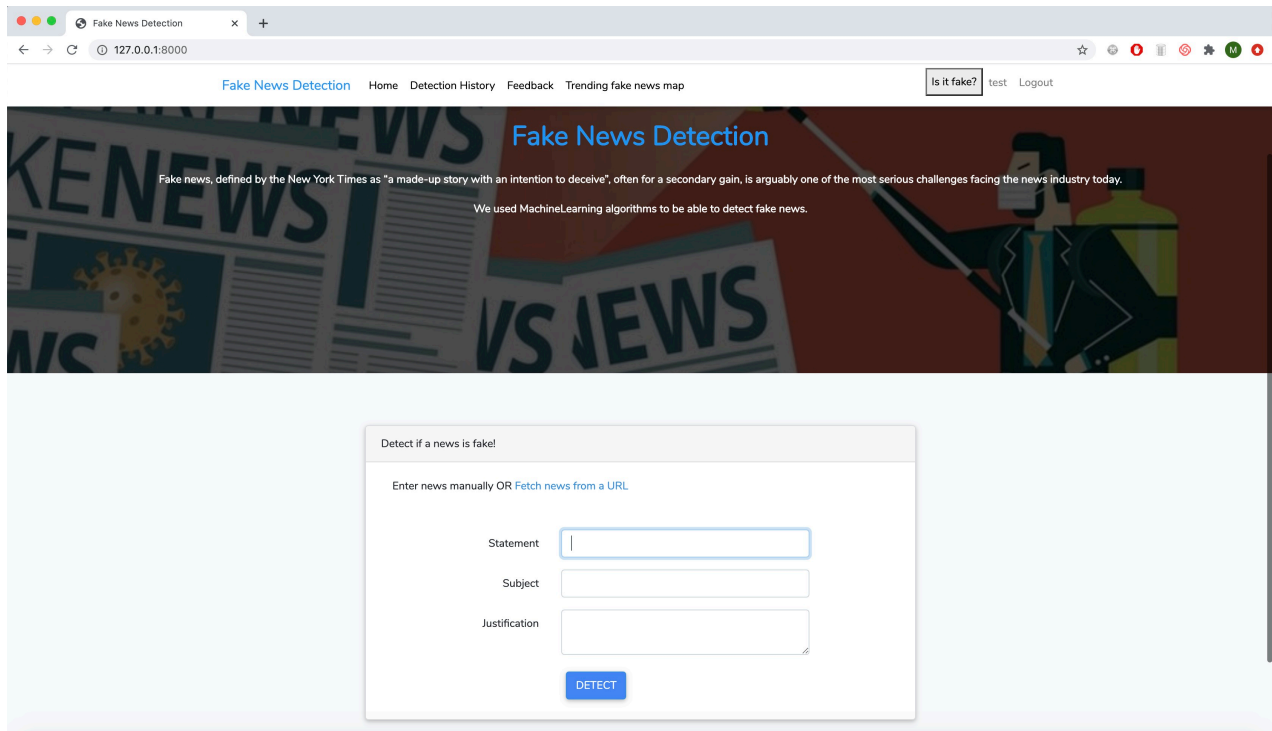
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# DETECTION PROCESS DIAGRAM

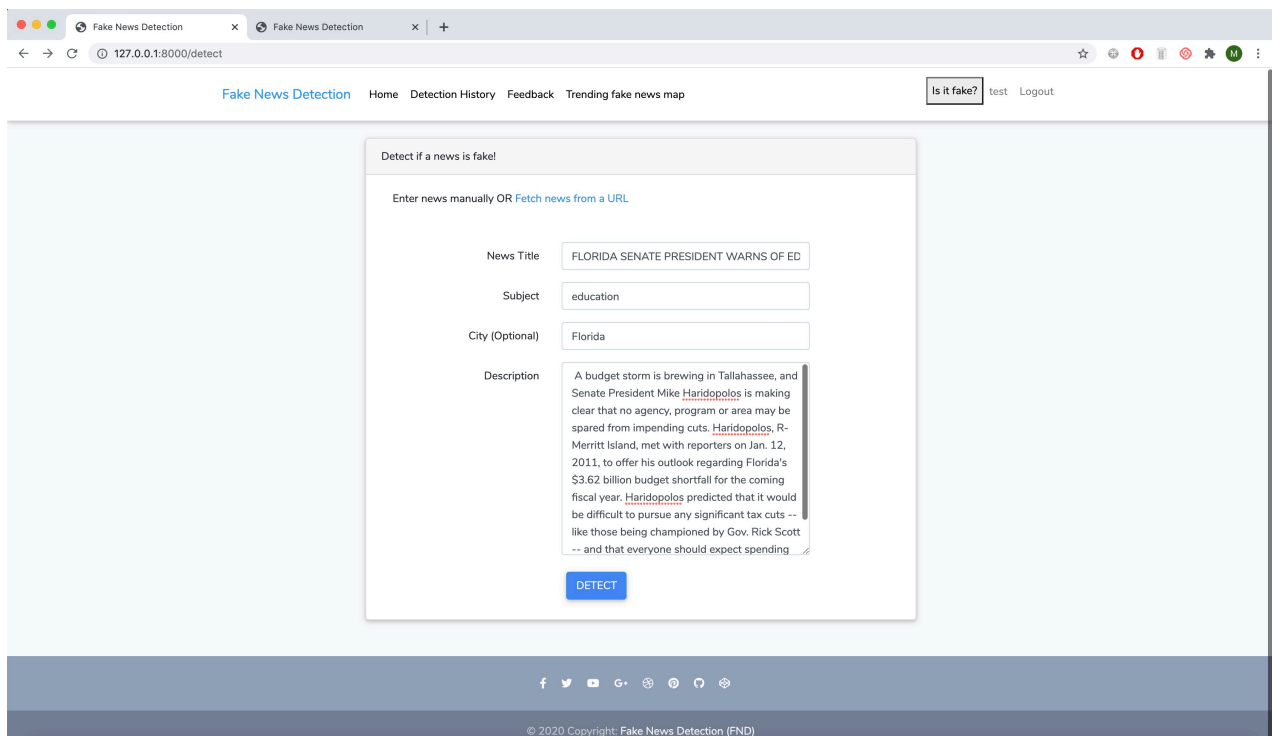


# IMPLEMENTATION SCREENSHOTS

Home Page:



Detect News Manually:



## Manual Detection Results:

[Fake News Detection](#) [Home](#) [Detection History](#) [Feedback](#) [Trending fake news map](#)

Is it fake?

test

Logout

Detect if a news is fake!

Enter news manually OR [Fetch news from a URL](#)

News Title

Subject

City (Optional)

Description

DETECT

Detection Result:

The news similarity rate in our dataset is: 4.6695832650598%

The news is 52.179652452469% True!

Provide feedback? click [here](#)

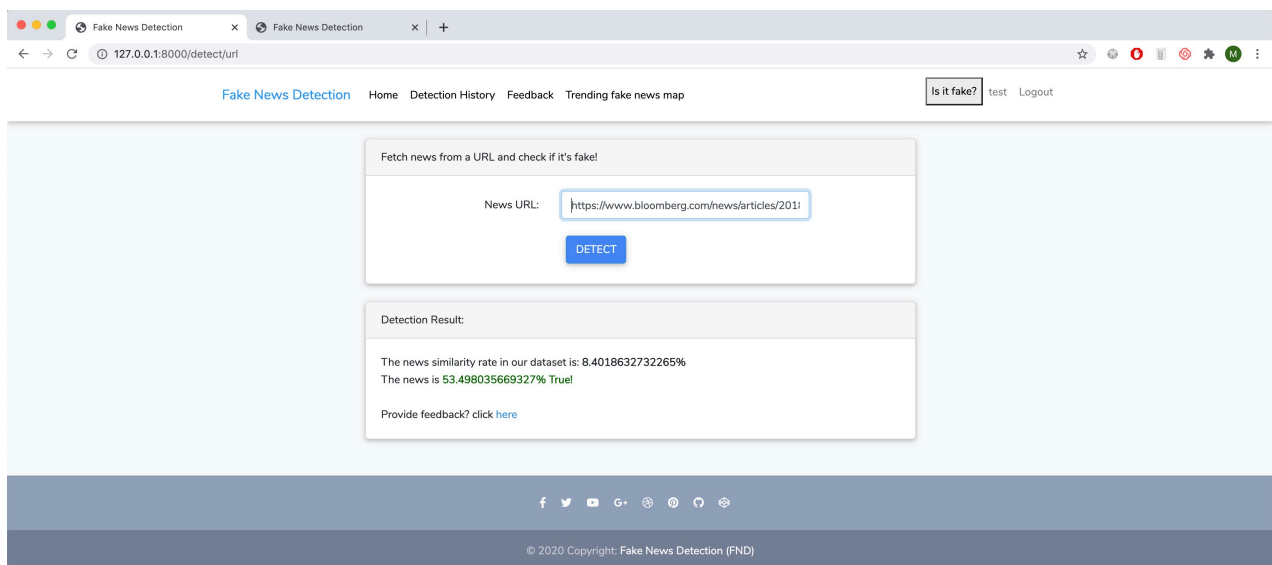
[f](#)[t](#)[y](#)[g](#)[p](#)[i](#)[s](#)

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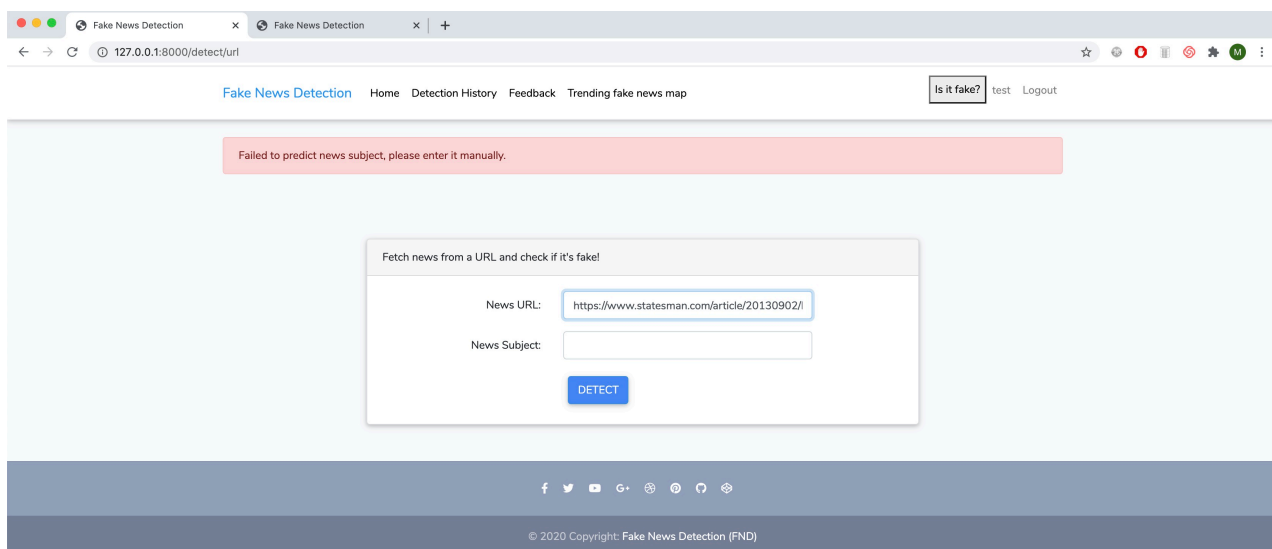
Detection from URL:

The screenshot displays the Fake News Detection (FND) web application. The browser's address bar shows the URL `127.0.0.1:8000/detect/url/`. The application's header includes the title "Fake News Detection" and navigation links for "Home", "Detection History", "Feedback", and "Trending fake news map". A "Is it fake?" button is located in the top right corner. The main content area features a form titled "Fetch news from a URL and check if it's fake!". This form contains a "News URL:" label, a text input field with the value `https://www.bloomberg.com/news/articles/201`, and a blue "DETECT" button. The footer of the application includes social media icons and a copyright notice: "© 2020 Copyright: Fake News Detection (FND)".

Detection from URL results:



Detection from URL when the system fails to predict the news subject:

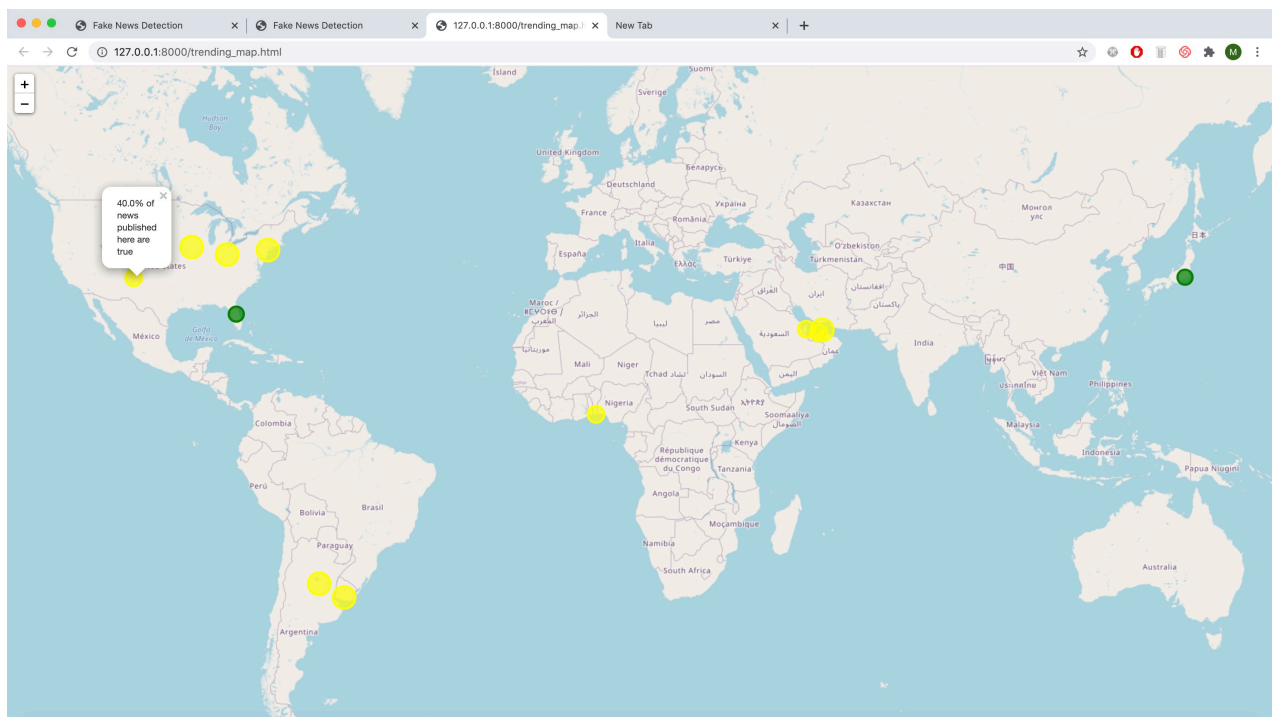


## Detection History Page:

The screenshot shows the 'Detection History' page of the Fake News Detection application. The page has a navigation bar with links to 'Home', 'Detection History', 'Feedback', and 'Trending fake news map'. A search bar labeled 'Is it fake?' and a 'test' button are also present. The main content area displays a list of detected fake news items, each with a statement, subject, justification, similarity rate, and truth rate.

Statement	Subject	Justification	Similarity rate in our dataset	Truth rate
USPS and Mail-In Ballots: States Warned It May Not Meet Deadlines	politics	The agency suggested allowing at least 15 days to request a ballot, fueling further criticism that it was making it harder to vote during th	5.16	49.57
PolitFact: Is Missouri money really fleeing to Texas? Sort of	economy	Do dollars slip from state to state? Texas Gov. Rick Perry suggested as much in a radio ad aired in Missouri as he framed his case for busin	3.37	56.58
Solar Beats Coal on U.S. Jobs	energy	The industry put twice as many people to work last year than its fossil-fuel counterpart	8.4	53.5
FLORIDA SENATE PRESIDENT WARNS OF EDUCATION FUNDING CUTS	education	A budget storm is brewing in Tallahassee, and Senate President Mike Haridopolos is making clear that no agency, program or area may be spare		

## Trending fake news map:





## Feedback Form:

The screenshot shows a web browser with three tabs: 'Fake News Detection', 'Fake News Detection', and '127.0.0.1:8000/trending\_map...'. The address bar shows '127.0.0.1:8000/feedback'. The page has a navigation bar with links: 'Fake News Detection', 'Home', 'Detection History', 'Feedback', and 'Trending fake news map'. On the right of the navigation bar, there is a button 'Is it fake?' and links 'test' and 'Logout'. The main content area features a 'Provide feedback' form with the following fields:

- Name:
- Email:
- Feedback:

Below the feedback fields is a blue 'SUBMIT' button. The footer of the page contains social media icons (Facebook, Twitter, YouTube, Google+, Instagram, LinkedIn, and GitHub) and the copyright notice: '© 2020 Copyright: Fake News Detection (FND)'.