

COS 301 - Software Engineering System Proposal

AI Online Assistant - Fake News detector

1. Introduction

Online fake news and other misinformation is one of the single biggest threats to the internet and to society at the moment. The corona virus pandemic again highlighted the need for factually accurate information being distributed online. Misinformation can also be malicious in nature for example phishing and other means of social engineering with the intent to harm or negatively influence individuals or groups.

2. Background & Motivation

An online assistant for example as a browser plug-in or Outlook email client plug-in that can be trained to recognise fake news, misinformation and other online threats such as social engineering attempts and phishing emails will be invaluable in protecting individuals and companies from these online threats.

3. System (Functional) Requirements

a. System Core Requirements

- i. An engine that can recognise fake news and misinformation based on various factors:
 1. Basic fact checking and verification using cross references to trusted sources
 2. AI that is trained on known fake news articles, posts, tweets, videos etc
 3. Database of fake news sources
 4. Community feedback should be carefully considered as this will make the system vulnerable again
- ii. In combination the above checks can be used to advise whether content contains fake news, misinformation or malicious intent.
- iii. Ideally this will work as a browser plugin, Facebook app and email client plugin as examples and should popup or otherwise highlight to the user any warnings related to the content they are consuming.





- iv. The system will likely require a server for processing, but it would be great to see how much can be done on the client-side.

4. Architectural Requirements

- Scalable, should allow for companies of varying sizes with acceptable performance
- Secure and able to meet GDPR and other compliances
- Should be reliable and able to handle system downtime via technology like message queues

5. System Structure

- System should preferably be built in a microservices approach, where each component can be individually hot swapped without taking down the entire system.

6. System Constraints

- System should not make use of any proprietary technologies
- System should be platform independent
- System should be easy to set up and install

7. System Design

- This is up to the group to determine - we have no specific preference

8. Technology Specifications

- This is up to the group to determine - we have no specific preference



[Office Address]



[Full name of client]



[Contact Information (Email, Slack, GitHub, etc.)]