Background Study

<u>Objectives and Motivations:</u> In our modern era where the internet is ubiquitous, everyone relies on various online resources for news. The spread of fake news has far-reaching consequences like the creation of biased opinions to swaying election outcomes for the benefit of certain candidates. There is a lack of proper frameworks for dealing with fake news. The proposed work aims at exploring the various machine learning techniques for detection and analysis of fake news and aim to provide the user with the ability to classify the news as fake or real and also check the authenticity of the website publishing the news.

<u>Proposed methodologies:</u> In this paper, they have used Python and its Sci-kit libraries. Python has a huge set of libraries and extensions, which can be easily used in Machine Learning. Sci-Kit Learn library is the best source for machine learning algorithms where nearly all types of machine learning algorithms are readily available for Python, thus easy and quick evaluation of ML algorithms is possible. Django for the web-based deployment of the model, provides client-side implementation using HTML, CSS and JavaScript.

Contributions:

- a) Defining fake news with respect to content, properties and types.
- b) Identifying sources of fake news.
- c) Analysing the various available corpora (datasets) for fake news detection.
- d) Building a data model for identifying the relevant news information.
- e) Fetching the data, establishing metrics for evaluation of fake news.
- f) Classification, handling, processing and using the data to perform predictions.

<u>Lackings:</u> There lies a lot of lacings. They assessed their models utilizing outright probability limits, which may not be the most dependable and lead to over fitting in certain cases. This technique does not provide a mechanism for contextual and cross referencing. And only virtual News could be detected.

<u>Summary:</u> Their they talk about many kinds of Algorithm. In one paper they compared many algorithms accuracy about that fake news detection. It can be seen that machine learning and artificial intelligence algorithms can be applied for detection off fake news. A number of different algorithms were implemented and their accuracies were observed. It was seen that although a neural networks model has high computational requirements it outperforms other models in terms of accuracy. The stochastic gradient classifier is the fastest learning algorithm. SVM uses the concept of hyperplanes instead of probability distributions, as seen in Naive Bayes, it is expected to perform better in the fake news detection. So it would help me to complete your project that which approach will be batter for me.