Information and Communication Technology for Competitive Strategies (ICTCS 2022) pp 473–484

A Fake News Classification and Identification Model Based on Machine Learning Approach

Ashish Kumar, M. Izharul Hasan Ansari & Kshatrapal Singh

Chapter | First Online: 16 May 2023

154 Accesses

Part of the Lecture Notes in Networks and Systems book series (LNNS,volume 615)

Abstract

In the recent past the popularity of the social media platform has increased exponentially and at the same time various challenges have also been increased. One of the major challenges is related to fake news on social media platforms. It is really nontrivial task to

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filter and distinguish between fake and the real news. In this paper, various machine learning models have been applied to identify and examine the fake news on social media platforms. The Naive Bayes, Support Vector Machines, Passive Aggressive Classifier, Random Forest, BERT, LSTM, and Logistic Regression, were used to classify and identify the fake news on various social media platforms. The work is based on an ISOT dataset of 44,898 news samples gathered from a variety of sources and pre-processed with TF-IDF and count vectorizer. On evaluating the performance of algorithms on the given dataset, it shows that the precision of the Passive Aggressive Classifiers is 99.73%, Naive Bayes is 96.75%, Logistic Regression is 98.82%, BERT is 97.62%, LSTM is 97.44%, SVM is 99.88%, and Random Forest is 99.82%. Therefore, it is concluded that the SVM is one of the best performing algorithms in terms of precision to identify the fake news on social media. However, there are very marginal differences in the performance of the SVM, Random Forest, and Progressive Aggressive Classifiers in terms of precision. Further, an algorithm can be designed and developed to collect the news available on the various social media platforms to maintain the dataset in real time and analyze the same to identify the fake news.

Keywords

Fake news **Machine learning**

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Comparative Analysis of Accuracy of Supervised Learning Classifier for breast cancer classification

Publisher: IEEE

Vrinda Sachdeva Vasudha Arora All Authors

Abstract: Breast Cancer is widely spreading disease among women all over the world. This cancer is considered as one of the deadly disease among women. Data mining algorithms play ... **View more**

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Abstract:
Breast Cancer is widely spreading disease among women all over the world. This cancer is considered as one of the deadly disease among women. Data mining algorithms play a vital role to predict the early stage cancer .The research problem is that there are lots of classifier with different level of accuracy. An approach for improving the performance and accuracy of three different classifiers, Decision Tree, Logistic Regression, and SVM, is proposed in this study. We also compare the class
Imbalanced data is a b
confusion matrix accur
correlation to remove s
splited into training and
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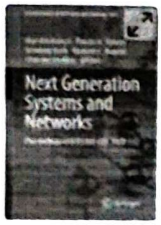

International Conference on Next Generation Systems and Networks

BITS-EEE-CON 2022: **Next Generation Systems and Networks** pp 155–162

DNA Sequencing: The Future Perspective

Kshatrapal Singh ✉, Manoj Kumar Gupta & Ashish Kumar

Conference paper | First Online: 10 July 2023

Part of the Lecture Notes in Networks and Systems book series (LNNS,volume 641)

Abstract

Surprises are unavoidable. Indeed, it's feasible that more of the world's data (currently saved on hard disks as well as in the clouds) will be saved in DNA decades over the next, but also that the primary factor of DNA sequencing will be our insatiable hunger for data storage rather than our effort to combat disease. We have presented our best estimations for the future of DNA sequencing in this

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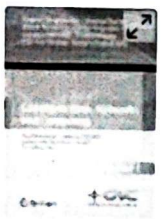

International Conference on Communication, Networks and Computing

CNC 2022: **Communication, Networks and Computing** pp 88–100

A Robust Graphical Authentication System for the Shoulder Surfing Attack

Shailja Varshney, Sonam Kumari, Anannya Agarwal & Prashant Pal

Conference paper | First Online: 27 September 2023

Part of the Communications in Computer and Information Science book series (CCIS,volume 1893)

Abstract

The technique of determining whether a user is legitimate or not is known as authentication. It needs a secret field (password) that only the actual user knows. Every security system is created in such a way that it must include at least one authentication technique to safeguard an individual's identity. There are numerous authentication methods available

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