Fake News Detection Using Machine Learning with Cloud Deployment

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Abstract: *The exponential growth of digital content has made online platforms the primary source of news consumption worldwide. However, this convenience has also led to the widespread dissemination of fake news, which poses significant threats to societal trust, political stability, and public safety. To address this challenge, this project presents a machine learning-based framework for automated fake news detection, seamlessly integrated with a cloud deployment infrastructure to ensure scalability, accessibility, and real-time performance.*

The proposed system employs advanced Natural Language Processing (NLP) techniques to analyze textual features and classify news articles as real or fake using supervised learning algorithms such as Logistic Regression, Random Forest, and Support Vector Machines (SVM). The model is trained on benchmark datasets containing labeled news articles and fine-tuned to achieve optimal accuracy and generalization.

Keywords: Support Vector Machines (SVM), Logistic Regression