**Highlights**

* Implemented a hybrid approach combining traditional machine learning models (Decision Trees, Random Forest,etc.) and deep learning models (RNN and BiLSTM) for fake news detection.
* The BiLSTM model outperformed traditional models in terms of accuracy and contextual understanding, while classical models provided fast and interpretable baselines.
* Applied robust text preprocessing techniques including tokenization, etc. for optimal performance across models.
* Conducted comprehensive performance comparisons.