

## **Conclusion:**

In this work, we have developed a spell correction model leveraging a combination of linguistic rules and statistical techniques. Through experimentation on diverse datasets spanning social media text, web articles, legal documents, and user-generated content, we have demonstrated the effectiveness of our proposed model in accurately correcting spelling errors. Our model, which integrates bidirectional long short-term memory (Bi-LSTM) networks with an attention mechanism, achieves competitive performance metrics, including accuracy, precision, recall, and F1-score. Additionally, we have provided insights into the computational efficiency of our model compared to existing approaches, highlighting its scalability and practical applicability. Overall, our work contributes to the advancement of spell correction technology, offering a robust and efficient solution for improving the quality of natural language processing applications.

