Vorasakdi Vorasiri	Integrating of Convolutional and Bidirectional LSTM and its Hybrid for Text Classification
Project Advisor	Asst. Prof. Suronapee Phoomvuthisarn

Abstract

This research project aimed to develop and evaluate four models for categorizing restaurant reviews based on their satisfaction levels. The models employed were a Convolutional Neural Network, Bidirectional Long short-term memory, Convolutional Recurrent Neural Network (CRNN), and a hybrid model that combined the optimal parameters of CNN and Bi-LSTM. The results of the evaluation revealed that the fine-tuned Bi-LSTM model exhibited superior performance, with a micro F1-score of approximately .4571. Furthermore, the CRNN model demonstrated the most effective average precision performance, achieving a weighted score of .3508 and a macro score of .2054.

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