Abstract

COMBINATION OF LSTM AND GRU ALGORITHMS IN THESIS 1 GENERATOR

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Lack of writing scientific works will be made into something that is challenging because individuals have to be accustomed to and encouraged to write. It requires motivation from individuals, thus generating self-confidence in writing scientific works. Although, in reality, we have knowledge and information in our respective fields that are worthy of being written as scientific papers. However, the problem is that we do not utilize them for writing. As students, we have a responsibility to complete our study plans within the scheduled time frame. However, the fact is that the process of thesis preparation does not always go smoothly because not all students have knowledge about how to write a good scientific work. Therefore, a model that can generate text output based on user input has been created by researchers. This research was built using a combination of LSTM and GRU algorithms to address the vanishing gradient problem in RNN. The aim of this research is to test the performance of the LSTM and GRU combination in a text generator case study. This research resulted in a text generator model with an accuracy of 0.84, val_acc 0.87, and loss 0.99, val_loss 1.16 based on the validation accuracy and validation loss metrics. The model was then retested using human similarity perception to determine the similarity of the model's writing and human writing. The testing resulted in an accuracy of 32.5%.

Keywords: Bidirectional, Deep Learning, GRU, LSTM, Text Generator