

COMP2550 Assignment3

Xingjian Leng(u7136359), Xuning Tan(u), Zhe Chen(u)

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For current Visual-Linguistic problems, the most widely used method is deep learning. Neural networks are the core of deep learning and have been applied to many Computer Vision and Natural Language Processing models. They have shown their capability to model complex patterns and prediction problems.

In machine learning models, hyperparameters could notably affect the performance. Therefore, the choice of hyperparameters is essential in improving the performance. However, there are a large number of hyperparameters in neural networks. The neural network architecture is one of the hyperparameters (i.e., how layers could be connected to build the whole network). Thus, we decided to use Neural Architecture Search (NAS) in searching for the optimal transformer layers in OSCAR to further improve its performance.