

Master's Thesis

Improving Accuracy of Binary Neural Networks using Shifting Operations

Binary neural networks (BNN) are considered to be a promising method to deploy deep neural networks on resource-constrained platforms, e.g., mobile devices. However, they suffer from accuracy degradation compared to the full-precision counterpart model. One of the methods to improve the accuracy of BNN is the expansion of their architectures, since the expanded architecture can provide more computation resources.

In this master thesis, shifting operations are used to improve the accuracy of binary neural networks. This method can provide additional computation capability for BNNs, so that their architectures might not be expanded to a large degree to compensate accuracy degradation.

Contact

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