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1 Abstract

Training Neural networks relies on the ability of researchers to find acceptable minimizers of highly non-convex loss functions. There are many well-known strategies that certain ways of designing the architecture (e.g., skip connections, multi-head attention, normalization layer) and hyper-parameters (e.g., batch size, scheduling method, optimizer) lead the training to solve optimization problems easier and faster. However, the process of finding out an adequate combination of designing procedures remains heuristic, while experimenting and evaluating performance remained to be the only available method. Moreover, *the process of training* is rarely understood though there have been researchers to interpret the results of the training. In this paper, an open-source interactive visualization tool is provided to help Neural Network researchers and practitioners analyze models with their extrinsic knowledge. First, various types of visualization strategies are discussed that might be able to alleviate the burden of researchers relying on time-consuming trial and error approaches. Then, using the variety of visualizations, behaviors of intra-modalities and inter-modalities are investigated to shed a light on general training patterns on the process of the training neural networks.