



Figure 1: The empirical distribution of pre-activation variable (on the left of each subplot) and post-activation variable (on the right of each subplot) for (a) FP-MLP-2, (b) T-MLP-2, (c) FP-LeNet-5, and (d) T-LeNet-5. For FP-MLP-2 and FP-LeNet-5, the weights are sampled from Gaussian distributions (i.e., following Assumption 3.1). For T-MLP-2 and T-LeNet-5, the weights are sampled from ternary-valued distributions (i.e., following Assumption 3.2). It is observed that the post-activation variables do not follow a Gaussian distribution. However, the pre-activation variables roughly follow a Gaussian distribution. This observation indicates that Assumption 3.6/3.7 follows Assumption 3.1/3.2 empirically.