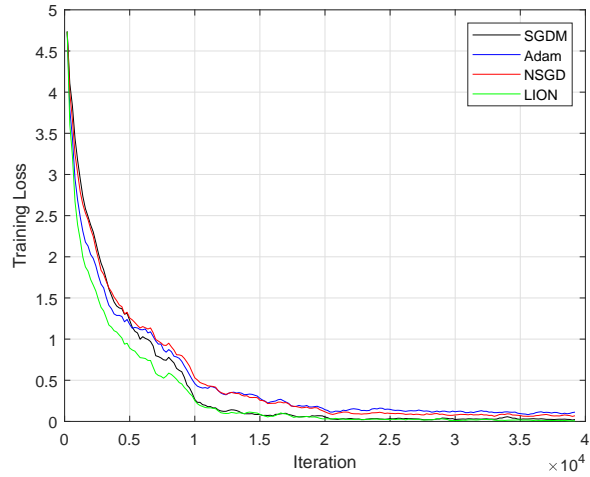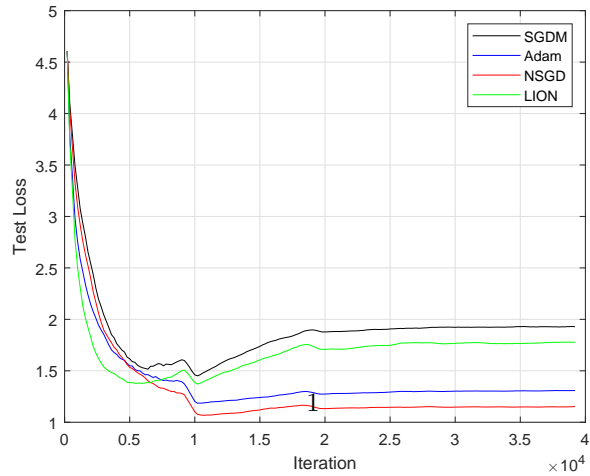(a) Test Accuracy

(b) Training Loss

(c) Test Loss

Figure 1: Performance profiles of NSGD, SGDM, Adam, and Lion with ResNet-18 model on CIFAR 100 dataset.