A Generic Active Learning Framework for Class Imbalance Applications: Supplemental File

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1 Effect of Batch Size on Learning Performance

In this experiment, we studied the effect of batch size on the learning performance. We conducted experiments on the MNIST dataset with batch size 3, 5 and 10. The results are presented in Figure 1. The proposed algorithm consistently demonstrates impressive performance across all batch sizes. SVM-AL and USBC also depict good performance, but are outperformed by our method. The performance of Random Sampling is inconsistent across the different batch sizes.

![MNIST Dataset: Batch Size 3](image)

(a) Batch Size: 3

![MNIST Dataset: Batch Size 5](image)

(b) Batch Size: 5

![MNIST Dataset: Batch Size 10](image)

(c) Batch Size: 10

Figure 1: Study of batch size on the MNIST dataset. Best viewed in color.