Requirements:

Pytorch

Torchvision

Pandas

Bokeh

Mlflow

numpy

Pruning

Homogenous

python main.py –dataset <imagenet/cifar10/cifar100> --model <resnet/vgg/densenet> -b 256 --datasets-dir <dataset_dir> --model-config "{'zeroBN':True}" --stochasticPrunning <sparsity ratio required>

Heterogenous

python main.py –dataset <imagenet/cifar10/cifar100> --model <resnet/vgg/densenet> -b 256 --datasets-dir <dataset_dir> --model-config "{'zeroBN':True}" --stochasticPrunning <sparsity ratio required> --preserve_cosine --layers_cos_sim1 "layer2" --cos_sim1 0.95 --layers_cos_sim2 "layer3" --cos_sim2 0.98 --layers_cos_sim3 "layer4" --cos_sim3 0.98 --max_sparsity 0.9

Quantization

python main_1_per_layer_loss_scale.py --dataset <imagenet/cifar> --model resnet --model-config "{'depth': <18/101>}" --smart-loss-scale-and-exp-bits --enable-scheduler --datasets-dir <dataset_dir> > --exp-bits <E> --fp-bits <bits> --calibrate-bn