Training with Pruning

[TOC]

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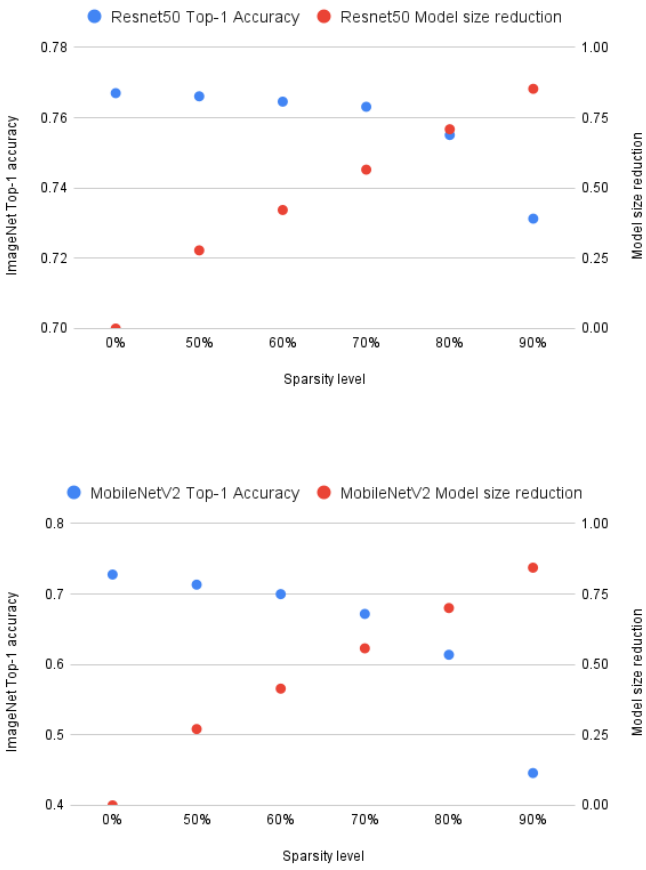
Overview

This project includes pruning codes for TensorFlow models. These are examples to show how to apply the Model Optimization Toolkit's pruning API.

How to train a model

```
EXPERIMENT=xxx  # Change this for your run, for example, 'resnet_imagenet_pruning'
CONFIG_FILE=xxx  # Change this for your run, for example, path of
imagenet_resnet50_pruning_gpu.yaml
MODEL_DIR=xxx  #  Change this for your run, for example, /tmp/model_dir
python3 train.py \
  --experiment=${EXPERIMENT} \
  --config_file=${CONFIG_FILE} \
  --model_dir=${MODEL_DIR} \
  --mode=train_and_eval
```

Accuracy



Comparison of Imagenet top-1 accuracy for the classification models

Note: The Top-1 model accuracy is measured on the validation set of ImageNet.

Pre-trained Models

Image Classification

Model	Resolution	Top-1 Accuracy (Dense)	Top-1 Accuracy (50% sparsity)	Top-1 Accuracy (80% sparsity)	Config	Download
MobileNetV2	224x224	72.768%	71.334%	61.378%	config	TFLite(50% sparsity),
ResNet50	224x224	76.704%	76.61%	75.508%	config	TFLite(80% sparsity)