Graph-based Neuron Agglomeration using 3D Skeletons

Supplemental Material

Anonymous CVPR submission

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Parameter	Considered Options
Optimizer	**SGD with Nesterov**, Adam
Loss Function	Binary Cross Entropy, **Mean Squared Error**
Output Size	3, 4, 5, **6**, 7
Batch Normalization	On, **Off**

1. Skeletonization

more details regarding the skeletonization approach, which I believe was extra fast?

1.1. Node Pruning

1.2. Edge Pruning

1.3. CNN Parameters

We considered the following sets of parameters for the neural network and ran a brute-force search over the parameters.

We also consider networks with four layers of double convolutions and increased filter sizes ($16 \times 32 \times 64$) but both these configurations have two many parameters to learn with such small datasets.

1.4. Performance Tests

We use a XX GHz Processor with a PASCAL TitanX 1080 GPU with 64GB of RAM for all of our performance tests. Inference for the CNN takes an average of 6.2 seconds per 1000 examples on our network of size

2. Agglomeration

2.1. Preprocessing

Different experiments on box size? Maybe quantitative evidence that our choice was right?

2.2. Classifier

2.2.1 Parameter Search

Our bruteforce experiments

3. Additional Datasets

3.1. Results

Do we have any plots which were too much for the paper?

References