Results

P1 is 80.000000

P2 is 92.000000

P3 is 99.100000

P4 is 93.000000

WARNING:tensorflow:From <ipython-input-5-ea757f536faf>:17: read\_data\_sets (from tensorflow.contrib.learn.python.learn.datasets.mnist) is deprecated and will be removed in a future version.

Instructions for updating:

Please use alternatives such as official/mnist/dataset.py from tensorflow/models.

WARNING:tensorflow:From /usr/local/lib/python3.6/dist-packages/tensorflow/contrib/learn/python/learn/datasets/mnist.py:260: maybe\_download (from tensorflow.contrib.learn.python.learn.datasets.base) is deprecated and will be removed in a future version.

Instructions for updating:

Please write your own downloading logic.

WARNING:tensorflow:From /usr/local/lib/python3.6/dist-packages/tensorflow/contrib/learn/python/learn/datasets/base.py:252: \_internal\_retry.<locals>.wrap.<locals>.wrapped\_fn (from tensorflow.contrib.learn.python.learn.datasets.base) is deprecated and will be removed in a future version.

Instructions for updating:

Please use urllib or similar directly.

Successfully downloaded train-images-idx3-ubyte.gz 9912422 bytes.

WARNING:tensorflow:From /usr/local/lib/python3.6/dist-packages/tensorflow/contrib/learn/python/learn/datasets/mnist.py:262: extract\_images (from tensorflow.contrib.learn.python.learn.datasets.mnist) is deprecated and will be removed in a future version.

Instructions for updating:

Please use tf.data to implement this functionality.

Extracting /tmp/tensorflow/mnist/input\_data/train-images-idx3-ubyte.gz

Successfully downloaded train-labels-idx1-ubyte.gz 28881 bytes.

WARNING:tensorflow:From /usr/local/lib/python3.6/dist-packages/tensorflow/contrib/learn/python/learn/datasets/mnist.py:267: extract\_labels (from tensorflow.contrib.learn.python.learn.datasets.mnist) is deprecated and will be removed in a future version.

Instructions for updating:

Please use tf.data to implement this functionality.

Extracting /tmp/tensorflow/mnist/input\_data/train-labels-idx1-ubyte.gz

WARNING:tensorflow:From /usr/local/lib/python3.6/dist-packages/tensorflow/contrib/learn/python/learn/datasets/mnist.py:110: dense\_to\_one\_hot (from tensorflow.contrib.learn.python.learn.datasets.mnist) is deprecated and will be removed in a future version.

Instructions for updating:

Please use tf.one\_hot on tensors.

Successfully downloaded t10k-images-idx3-ubyte.gz 1648877 bytes.

Extracting /tmp/tensorflow/mnist/input\_data/t10k-images-idx3-ubyte.gz

Successfully downloaded t10k-labels-idx1-ubyte.gz 4542 bytes.

Extracting /tmp/tensorflow/mnist/input\_data/t10k-labels-idx1-ubyte.gz

WARNING:tensorflow:From /usr/local/lib/python3.6/dist-packages/tensorflow/contrib/learn/python/learn/datasets/mnist.py:290: DataSet.\_\_init\_\_ (from tensorflow.contrib.learn.python.learn.datasets.mnist) is deprecated and will be removed in a future version.

Instructions for updating:

Please use alternatives such as official/mnist/dataset.py from tensorflow/models.

WARNING:tensorflow:From /usr/local/lib/python3.6/dist-packages/tensorflow/python/framework/op\_def\_library.py:263: colocate\_with (from tensorflow.python.framework.ops) is deprecated and will be removed in a future version.

Instructions for updating:

Colocations handled automatically by placer.

WARNING:tensorflow:From <ipython-input-2-725c13d4e56c>:50: calling dropout (from tensorflow.python.ops.nn\_ops) with keep\_prob is deprecated and will be removed in a future version.

Instructions for updating:

Please use `rate` instead of `keep\_prob`. Rate should be set to `rate = 1 - keep\_prob`.

WARNING:tensorflow:From <ipython-input-2-725c13d4e56c>:56: softmax\_cross\_entropy\_with\_logits (from tensorflow.python.ops.nn\_ops) is deprecated and will be removed in a future version.

Instructions for updating:

Future major versions of TensorFlow will allow gradients to flow

into the labels input on backprop by default.

See `tf.nn.softmax\_cross\_entropy\_with\_logits\_v2`.

Saving graph to: /tmp/tmpl73\_vyyq

step 0, training accuracy 0.12

step 100, training accuracy 0.96

step 200, training accuracy 0.94

step 300, training accuracy 0.98

step 400, training accuracy 0.96

step 500, training accuracy 0.96

step 600, training accuracy 0.96

step 700, training accuracy 0.98

step 800, training accuracy 0.98

step 900, training accuracy 0.96

step 1000, training accuracy 0.98

step 1100, training accuracy 0.98

step 1200, training accuracy 1

step 1300, training accuracy 1

step 1400, training accuracy 1

step 1500, training accuracy 1

step 1600, training accuracy 0.96

step 1700, training accuracy 1

step 1800, training accuracy 0.98

step 1900, training accuracy 1

step 2000, training accuracy 1

step 2100, training accuracy 1

step 2200, training accuracy 1

step 2300, training accuracy 1

step 2400, training accuracy 0.98

step 2500, training accuracy 0.98

step 2600, training accuracy 1

step 2700, training accuracy 0.98

step 2800, training accuracy 1

step 2900, training accuracy 0.98

step 3000, training accuracy 0.98

step 3100, training accuracy 1

step 3200, training accuracy 0.96

step 3300, training accuracy 1

step 3400, training accuracy 1

step 3500, training accuracy 1

step 3600, training accuracy 0.98

step 3700, training accuracy 1

step 3800, training accuracy 1

step 3900, training accuracy 1

step 4000, training accuracy 0.98

step 4100, training accuracy 1

step 4200, training accuracy 1

step 4300, training accuracy 0.98

step 4400, training accuracy 1

step 4500, training accuracy 1

step 4600, training accuracy 1

step 4700, training accuracy 1

step 4800, training accuracy 1

step 4900, training accuracy 1

test accuracy 0.992

percentile 0.1737910598516465

percentile 0.16992775142192845

percentile 0.18137993374466896

percentile 0.18720721289515496

step 0, training accuracy 1

step 100, training accuracy 1

step 200, training accuracy 1

step 300, training accuracy 1

step 400, training accuracy 0.98

step 500, training accuracy 0.98

step 600, training accuracy 1

step 700, training accuracy 0.98

step 800, training accuracy 1

step 900, training accuracy 1

step 1000, training accuracy 1

step 1100, training accuracy 1

step 1200, training accuracy 1

step 1300, training accuracy 0.98

step 1400, training accuracy 0.96

step 1500, training accuracy 1

step 1600, training accuracy 1

step 1700, training accuracy 1

step 1800, training accuracy 1

step 1900, training accuracy 1

percentile 0.191146457195282

percentile 0.1630812501907349

percentile 0.14010293626785295

percentile 0.1898446573317052

test accuracy 0.9901

1.918817

10.407271

18.903631

5.7078323

step 0, training accuracy 1

step 100, training accuracy 1

step 200, training accuracy 1

step 300, training accuracy 1

step 400, training accuracy 1

step 500, training accuracy 1

step 600, training accuracy 1

step 700, training accuracy 1

step 800, training accuracy 0.98

step 900, training accuracy 1

step 1000, training accuracy 0.98

step 1100, training accuracy 1

step 1200, training accuracy 1

step 1300, training accuracy 1

step 1400, training accuracy 1

step 1500, training accuracy 1

step 1600, training accuracy 1

step 1700, training accuracy 0.96

step 1800, training accuracy 1

step 1900, training accuracy 0.98

percentile 0.29385272264480594

percentile 0.23246718347072604

percentile 0.18313303020596516

percentile 0.2909301257133486

test accuracy 0.9892

2.7998996

11.173764

15.129326

6.3954754

step 0, training accuracy 1

step 100, training accuracy 1

step 200, training accuracy 1

step 300, training accuracy 1

step 400, training accuracy 1

step 500, training accuracy 0.98

step 600, training accuracy 0.94

step 700, training accuracy 1

step 800, training accuracy 0.98

step 900, training accuracy 1

step 1000, training accuracy 1

step 1100, training accuracy 0.98

step 1200, training accuracy 1

step 1300, training accuracy 1

step 1400, training accuracy 1

step 1500, training accuracy 0.98

step 1600, training accuracy 1

step 1700, training accuracy 1

step 1800, training accuracy 0.98

step 1900, training accuracy 0.98

percentile 0.39673701524734517

percentile 0.276498099565506

percentile 0.20496151314675823

percentile 0.3845989373326305

test accuracy 0.9903

3.5360222

12.314533

15.904041

6.8207245

step 0, training accuracy 0.98

step 100, training accuracy 1

step 200, training accuracy 1

step 300, training accuracy 1

step 400, training accuracy 0.98

step 500, training accuracy 1

step 600, training accuracy 1

step 700, training accuracy 1

step 800, training accuracy 1

step 900, training accuracy 1

step 1000, training accuracy 1

step 1100, training accuracy 1

step 1200, training accuracy 1

step 1300, training accuracy 1

step 1400, training accuracy 0.98

step 1500, training accuracy 1

step 1600, training accuracy 1

step 1700, training accuracy 1

step 1800, training accuracy 1

step 1900, training accuracy 1

percentile 0.43771736621856694

percentile 0.284722306728363

percentile 0.21829026293754697

percentile 0.40852779150009166

test accuracy 0.9887

4.218311

13.235054

16.618969

7.749252

step 0, training accuracy 1

step 100, training accuracy 1

step 200, training accuracy 1

step 300, training accuracy 1

step 400, training accuracy 1

step 500, training accuracy 1

step 600, training accuracy 1

step 700, training accuracy 1

step 800, training accuracy 1

step 900, training accuracy 1

step 1000, training accuracy 1

step 1100, training accuracy 1

step 1200, training accuracy 0.98

step 1300, training accuracy 1

step 1400, training accuracy 1

step 1500, training accuracy 1

step 1600, training accuracy 1

step 1700, training accuracy 0.98

step 1800, training accuracy 1

step 1900, training accuracy 1

percentile 0.525926959514618

percentile 0.2834801268577576

percentile 0.21857189656794082

percentile 0.42021251410245947

test accuracy 0.9902

4.6456304

13.148294

16.46444

7.8043723

step 0, training accuracy 1

step 100, training accuracy 1

step 200, training accuracy 1

step 300, training accuracy 0.98

step 400, training accuracy 0.98

step 500, training accuracy 1

step 600, training accuracy 0.98

step 700, training accuracy 1

step 800, training accuracy 0.98

step 900, training accuracy 1

step 1000, training accuracy 1

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step 1200, training accuracy 1

step 1300, training accuracy 1

step 1400, training accuracy 1

step 1500, training accuracy 1

step 1600, training accuracy 1

step 1700, training accuracy 1

step 1800, training accuracy 1

step 1900, training accuracy 1

percentile 0.5747396945953369

percentile 0.27050741314888

percentile 0.21828725868463603

percentile 0.3927333021163941

test accuracy 0.992

5.4850006

12.719335

15.602577

7.798232

step 0, training accuracy 1

step 100, training accuracy 1

step 200, training accuracy 1

step 300, training accuracy 1

step 400, training accuracy 1

step 500, training accuracy 0.98

step 600, training accuracy 1

step 700, training accuracy 1

step 800, training accuracy 1

step 900, training accuracy 1

step 1000, training accuracy 0.98

step 1100, training accuracy 1

step 1200, training accuracy 1

step 1300, training accuracy 1

step 1400, training accuracy 0.96

step 1500, training accuracy 0.98

step 1600, training accuracy 1

step 1700, training accuracy 0.96

step 1800, training accuracy 1

step 1900, training accuracy 1

percentile 0.5920732259750368

percentile 0.2531582963466645

percentile 0.2083866706937553

percentile 0.35827054709196116

test accuracy 0.9893

5.492561

11.878746

14.788296

6.7162867

step 0, training accuracy 0.98

step 100, training accuracy 1

step 200, training accuracy 1

step 300, training accuracy 1

step 400, training accuracy 1

step 500, training accuracy 1

step 600, training accuracy 0.98

step 700, training accuracy 1

step 800, training accuracy 1

step 900, training accuracy 1

step 1000, training accuracy 1

step 1100, training accuracy 0.98

step 1200, training accuracy 1

step 1300, training accuracy 1

step 1400, training accuracy 1

step 1500, training accuracy 1

step 1600, training accuracy 1

step 1700, training accuracy 1

step 1800, training accuracy 1

step 1900, training accuracy 1

percentile 0.5947469115257266

percentile 0.24287693858146672

percentile 0.20273936896026162

percentile 0.3213777348399164

test accuracy 0.9919

5.6906557

10.825246

13.473234

5.9866843

step 0, training accuracy 0.98

step 100, training accuracy 0.98

step 200, training accuracy 1

step 300, training accuracy 1

step 400, training accuracy 0.98

step 500, training accuracy 1

step 600, training accuracy 0.98

step 700, training accuracy 0.98

step 800, training accuracy 1

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step 1000, training accuracy 1

step 1100, training accuracy 1

step 1200, training accuracy 1

step 1300, training accuracy 0.96

step 1400, training accuracy 1

step 1500, training accuracy 0.98

step 1600, training accuracy 1

step 1700, training accuracy 1

step 1800, training accuracy 1

step 1900, training accuracy 1

percentile 0.5957993268966677

percentile 0.23288785159587863

percentile 0.19292394560575488

percentile 0.3198757886886597

test accuracy 0.992

5.598345

10.046785

12.63686

5.017919

step 0, training accuracy 1

step 100, training accuracy 1

step 200, training accuracy 0.98

step 300, training accuracy 1

step 400, training accuracy 1

step 500, training accuracy 1

step 600, training accuracy 1

step 700, training accuracy 1

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step 1300, training accuracy 1

step 1400, training accuracy 1

step 1500, training accuracy 1

step 1600, training accuracy 1

step 1700, training accuracy 1

step 1800, training accuracy 1

step 1900, training accuracy 1

percentile 0.583031153678894

percentile 0.22366304039955154

percentile 0.18575549301505115

percentile 0.2831309425830845

test accuracy 0.9916

5.6591816

9.396417

11.756353

4.637336

step 0, training accuracy 1

step 100, training accuracy 1

step 200, training accuracy 1

step 300, training accuracy 1

step 400, training accuracy 1

step 500, training accuracy 1

step 600, training accuracy 1

step 700, training accuracy 1

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step 900, training accuracy 1

step 1000, training accuracy 0.98

step 1100, training accuracy 1

step 1200, training accuracy 1

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step 1400, training accuracy 1

step 1500, training accuracy 1

step 1600, training accuracy 1

step 1700, training accuracy 1

step 1800, training accuracy 1

step 1900, training accuracy 1

percentile 0.5853696703910828

percentile 0.21548461258411408

percentile 0.17539272494614175

percentile 0.27934784770011994

test accuracy 0.9909

5.2633944

8.876885

10.882492

3.9002478

step 0, training accuracy 1

step 100, training accuracy 1

step 200, training accuracy 1

step 300, training accuracy 0.98

step 400, training accuracy 1

step 500, training accuracy 1

step 600, training accuracy 1

step 700, training accuracy 1

step 800, training accuracy 0.98

step 900, training accuracy 1

step 1000, training accuracy 0.98

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step 1700, training accuracy 1

step 1800, training accuracy 1

step 1900, training accuracy 1

percentile 0.5720394253730777

percentile 0.2076403892040254

percentile 0.16717495933175183

percentile 0.25389931797981274

test accuracy 0.9924

5.3763294

8.264621

9.992866

3.5690331

step 0, training accuracy 0.98

step 100, training accuracy 1

step 200, training accuracy 1

step 300, training accuracy 1

step 400, training accuracy 1

step 500, training accuracy 1

step 600, training accuracy 1

step 700, training accuracy 0.98

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step 1400, training accuracy 1

step 1500, training accuracy 1

step 1600, training accuracy 1

step 1700, training accuracy 1

step 1800, training accuracy 1

step 1900, training accuracy 1

percentile 0.5720705270767215

percentile 0.20027845799922944

percentile 0.15935135316848756

percentile 0.2462408760190014

test accuracy 0.9919

5.165873

7.8732886

9.164495

3.1744304

step 0, training accuracy 1

step 100, training accuracy 1

step 200, training accuracy 0.98

step 300, training accuracy 1

step 400, training accuracy 1

step 500, training accuracy 1

step 600, training accuracy 1

step 700, training accuracy 1

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step 1300, training accuracy 1

step 1400, training accuracy 1

step 1500, training accuracy 1

step 1600, training accuracy 1

step 1700, training accuracy 1

step 1800, training accuracy 0.98

step 1900, training accuracy 1

percentile 0.5795086622238161

percentile 0.19800581991672517

percentile 0.1531826077997699

percentile 0.2239808939397337

test accuracy 0.9922

5.225911

7.479061

8.641449

2.9221458

step 0, training accuracy 1

step 100, training accuracy 1

step 200, training accuracy 1

step 300, training accuracy 1

step 400, training accuracy 1

step 500, training accuracy 1

step 600, training accuracy 1

step 700, training accuracy 1

step 800, training accuracy 1

step 900, training accuracy 0.98

step 1000, training accuracy 1

step 1100, training accuracy 1

step 1200, training accuracy 1

step 1300, training accuracy 1

step 1400, training accuracy 1

step 1500, training accuracy 1

step 1600, training accuracy 1

step 1700, training accuracy 1

step 1800, training accuracy 1

step 1900, training accuracy 1

percentile 0.5654973506927491

percentile 0.19488057196140293

percentile 0.14875704540312304

percentile 0.20866192355752028

test accuracy 0.9934

5.1803355

7.2557964

7.952163

2.524512

step 0, training accuracy 1

step 100, training accuracy 1

step 200, training accuracy 0.98

step 300, training accuracy 1

step 400, training accuracy 1

step 500, training accuracy 1

step 600, training accuracy 0.98

step 700, training accuracy 1

step 800, training accuracy 1

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step 1000, training accuracy 1

step 1100, training accuracy 0.98

step 1200, training accuracy 1

step 1300, training accuracy 1

step 1400, training accuracy 1

step 1500, training accuracy 1

step 1600, training accuracy 1

step 1700, training accuracy 1

step 1800, training accuracy 1

step 1900, training accuracy 1

percentile 0.5443123102188111

percentile 0.19142443656921393

percentile 0.1448223409205676

percentile 0.20084750518202793

test accuracy 0.993

5.110572

6.9953947

7.5764046

2.3015733

step 0, training accuracy 1

step 100, training accuracy 0.98

step 200, training accuracy 1

step 300, training accuracy 1

step 400, training accuracy 1

step 500, training accuracy 1

step 600, training accuracy 1

step 700, training accuracy 0.98

step 800, training accuracy 1

step 900, training accuracy 1

step 1000, training accuracy 1

step 1100, training accuracy 1

step 1200, training accuracy 1

step 1300, training accuracy 1

step 1400, training accuracy 1

step 1500, training accuracy 1

step 1600, training accuracy 0.98

step 1700, training accuracy 1

step 1800, training accuracy 1

step 1900, training accuracy 1

percentile 0.5803436040878298

percentile 0.18910791158676157

percentile 0.1400621278733032

percentile 0.19508759140968335

test accuracy 0.9925

5.0668254

6.818129

7.228797

2.1957855

step 0, training accuracy 1

step 100, training accuracy 1

step 200, training accuracy 0.98

step 300, training accuracy 1

step 400, training accuracy 1

step 500, training accuracy 1

step 600, training accuracy 1

step 700, training accuracy 1

step 800, training accuracy 1

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step 1100, training accuracy 1

step 1200, training accuracy 1

step 1300, training accuracy 1

step 1400, training accuracy 1

step 1500, training accuracy 1

step 1600, training accuracy 1

step 1700, training accuracy 1

step 1800, training accuracy 1

step 1900, training accuracy 1

percentile 0.5640877723693848

percentile 0.1846458405256272

percentile 0.13817569425702125

percentile 0.1817713627219202

test accuracy 0.9917

5.1095467

6.6107273

6.8338447

1.9908425

step 0, training accuracy 1

step 100, training accuracy 1

step 200, training accuracy 1

step 300, training accuracy 1

step 400, training accuracy 1

step 500, training accuracy 1

step 600, training accuracy 1

step 700, training accuracy 1

step 800, training accuracy 1

step 900, training accuracy 1

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step 1100, training accuracy 1

step 1200, training accuracy 1

step 1300, training accuracy 1

step 1400, training accuracy 1

step 1500, training accuracy 1

step 1600, training accuracy 1

step 1700, training accuracy 1

step 1800, training accuracy 0.96

step 1900, training accuracy 1

percentile 0.5510028362274171

percentile 0.18326372325420384

percentile 0.1348130550533544

percentile 0.17674426808953325

test accuracy 0.9911

5.0764074

6.4306455

6.750282

1.802071

step 0, training accuracy 1

step 100, training accuracy 1

step 200, training accuracy 1

step 300, training accuracy 1

step 400, training accuracy 1

step 500, training accuracy 1

step 600, training accuracy 1

step 700, training accuracy 1

step 800, training accuracy 1

step 900, training accuracy 1

step 1000, training accuracy 1

step 1100, training accuracy 0.98

step 1200, training accuracy 1

step 1300, training accuracy 1

step 1400, training accuracy 1

step 1500, training accuracy 1

step 1600, training accuracy 1

step 1700, training accuracy 1

step 1800, training accuracy 1

step 1900, training accuracy 1

percentile 0.5649896144866944

percentile 0.17673623561859134

percentile 0.13235400067269862

percentile 0.17647840529680364

test accuracy 0.9905

4.9676576

6.2527657

6.4631457

1.7908863

step 0, training accuracy 1

step 100, training accuracy 1

step 200, training accuracy 1

step 300, training accuracy 1

step 400, training accuracy 1

step 500, training accuracy 0.98

step 600, training accuracy 1

step 700, training accuracy 1

step 800, training accuracy 1

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step 1200, training accuracy 1

step 1300, training accuracy 1

step 1400, training accuracy 1

step 1500, training accuracy 1

step 1600, training accuracy 1

step 1700, training accuracy 1

step 1800, training accuracy 1

step 1900, training accuracy 1

percentile 0.5715287804603578

percentile 0.1733096808195116

percentile 0.12950681860744956

percentile 0.18180381730198877

test accuracy 0.9912

4.936184

5.97529

6.355277

1.8137285

step 0, training accuracy 1

step 100, training accuracy 1

step 200, training accuracy 0.98

step 300, training accuracy 1

step 400, training accuracy 1

step 500, training accuracy 1

step 600, training accuracy 1

step 700, training accuracy 1

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step 1300, training accuracy 1

step 1400, training accuracy 1

step 1500, training accuracy 1

step 1600, training accuracy 1

step 1700, training accuracy 1

step 1800, training accuracy 0.98

step 1900, training accuracy 1

percentile 0.5537902712821962

percentile 0.1708881849050522

percentile 0.12622412247955858

percentile 0.1639225502312188

test accuracy 0.9904

4.833994

5.809694

6.0731792

1.703318

step 0, training accuracy 1

step 100, training accuracy 1

step 200, training accuracy 1

step 300, training accuracy 1

step 400, training accuracy 1

step 500, training accuracy 1

step 600, training accuracy 1

step 700, training accuracy 1

step 800, training accuracy 1

step 900, training accuracy 1

step 1000, training accuracy 1

step 1100, training accuracy 1

step 1200, training accuracy 1

step 1300, training accuracy 1

step 1400, training accuracy 1

step 1500, training accuracy 1

step 1600, training accuracy 1

step 1700, training accuracy 1

step 1800, training accuracy 1

step 1900, training accuracy 1

percentile 0.5478440284729006

percentile 0.1677070307731629

percentile 0.12317975612729828

percentile 0.16068391650915148

test accuracy 0.9912

4.7760277

5.65295

6.0240264

1.5311446

step 0, training accuracy 1

step 100, training accuracy 0.98

step 200, training accuracy 1

step 300, training accuracy 1

step 400, training accuracy 1

step 500, training accuracy 1

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step 1200, training accuracy 1

step 1300, training accuracy 1

step 1400, training accuracy 1

step 1500, training accuracy 1

step 1600, training accuracy 1

step 1700, training accuracy 0.98

step 1800, training accuracy 1

step 1900, training accuracy 1

percentile 0.5534319043159485

percentile 0.1660433971881867

percentile 0.12097121211141348

percentile 0.15336200714111395

test accuracy 0.9905

4.780711

5.443511

5.544451

1.3911399

step 0, training accuracy 1

step 100, training accuracy 0.98

step 200, training accuracy 1

step 300, training accuracy 1

step 400, training accuracy 1

step 500, training accuracy 1

step 600, training accuracy 1

step 700, training accuracy 1

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step 1300, training accuracy 1

step 1400, training accuracy 1

step 1500, training accuracy 1

step 1600, training accuracy 1

step 1700, training accuracy 1

step 1800, training accuracy 1

step 1900, training accuracy 1

percentile 0.557729744911194

percentile 0.16177750051021578

percentile 0.1189797918498518

percentile 0.15050696104764946

test accuracy 0.9902

4.71438

5.281311

5.495428

1.3332698

step 0, training accuracy 1

step 100, training accuracy 1

step 200, training accuracy 0.98

step 300, training accuracy 1

step 400, training accuracy 1

step 500, training accuracy 1

step 600, training accuracy 1

step 700, training accuracy 1

step 800, training accuracy 1

step 900, training accuracy 1

step 1000, training accuracy 1

step 1100, training accuracy 1

step 1200, training accuracy 1

step 1300, training accuracy 1

step 1400, training accuracy 1

step 1500, training accuracy 1

step 1600, training accuracy 1

step 1700, training accuracy 1

step 1800, training accuracy 1

step 1900, training accuracy 1

percentile 0.5122547030448916

percentile 0.15982265591621403

percentile 0.11638351881504083

percentile 0.14323289737105377

test accuracy 0.9926

4.546471

5.108289

5.2435336

1.2585089

step 0, training accuracy 1

step 100, training accuracy 1

step 200, training accuracy 1

step 300, training accuracy 1

step 400, training accuracy 1

step 500, training accuracy 0.98

step 600, training accuracy 0.98

step 700, training accuracy 1

step 800, training accuracy 1

step 900, training accuracy 1

step 1000, training accuracy 1

step 1100, training accuracy 1

step 1200, training accuracy 1

step 1300, training accuracy 1

step 1400, training accuracy 1

step 1500, training accuracy 1

step 1600, training accuracy 1

step 1700, training accuracy 1

step 1800, training accuracy 1

step 1900, training accuracy 1

percentile 0.5277814149856568

percentile 0.15818806350231174

percentile 0.11395508152246489

percentile 0.13112416207790417

test accuracy 0.9924

4.4105554

4.9869304

5.029522

1.1743625

step 0, training accuracy 0.98

step 100, training accuracy 1

step 200, training accuracy 1

step 300, training accuracy 1

step 400, training accuracy 1

step 500, training accuracy 1

step 600, training accuracy 1

step 700, training accuracy 1

step 800, training accuracy 1

step 900, training accuracy 1

step 1000, training accuracy 1

step 1100, training accuracy 1

step 1200, training accuracy 1

step 1300, training accuracy 1

step 1400, training accuracy 1

step 1500, training accuracy 1

step 1600, training accuracy 1

step 1700, training accuracy 1

step 1800, training accuracy 1

step 1900, training accuracy 1

percentile 0.5356780529022217

percentile 0.15421780645847322

percentile 0.11131797434389594

percentile 0.12315867431461813

test accuracy 0.9919

4.6155386

4.814012

4.8458104

1.0796318

step 0, training accuracy 1

step 100, training accuracy 1

step 200, training accuracy 1

step 300, training accuracy 1

step 400, training accuracy 1

step 500, training accuracy 1

step 600, training accuracy 1

step 700, training accuracy 1

step 800, training accuracy 1

step 900, training accuracy 1

step 1000, training accuracy 1

step 1100, training accuracy 1

step 1200, training accuracy 1

step 1300, training accuracy 1

step 1400, training accuracy 1

step 1500, training accuracy 1

step 1600, training accuracy 0.98

step 1700, training accuracy 0.98

step 1800, training accuracy 1

step 1900, training accuracy 1

percentile 0.556762719154358

percentile 0.15243950605392487

percentile 0.10854678952693964

percentile 0.11690886326134234

test accuracy 0.9917

4.6094427

4.636494

4.7387414

0.94439363

step 0, training accuracy 1

step 100, training accuracy 1

step 200, training accuracy 1

step 300, training accuracy 1

step 400, training accuracy 1

step 500, training accuracy 1

step 600, training accuracy 1

step 700, training accuracy 0.98

step 800, training accuracy 1

step 900, training accuracy 1

step 1000, training accuracy 1

step 1100, training accuracy 1

step 1200, training accuracy 1

step 1300, training accuracy 1

step 1400, training accuracy 1

step 1500, training accuracy 1

step 1600, training accuracy 1

step 1700, training accuracy 0.98

step 1800, training accuracy 1

step 1900, training accuracy 1

percentile 0.559142065048218

percentile 0.15315174877643592

percentile 0.10757746969163465

percentile 0.1080292812734851

test accuracy 0.9913

4.7758822

4.651978

4.580811

0.8763437

at weight conv1/W\_conv1

before pruning #non zero parameters 500

percentile 0.3028565824031831

pruned 400

after prunning #non zero parameters 100

at weight conv2/W\_conv2

before pruning #non zero parameters 25000

percentile 0.08666254788637165

pruned 23000

after prunning #non zero parameters 2000

at weight fc1/W\_fc1

before pruning #non zero parameters 400000

percentile 0.06332733263820477

pruned 396400

after prunning #non zero parameters 3600

at weight fc2/W\_fc2

before pruning #non zero parameters 5000

percentile 0.06596140213310749

pruned 4650

after prunning #non zero parameters 350

checking space dictionary

dict\_keys(['conv1/W\_conv1', 'conv2/W\_conv2', 'fc1/W\_fc1', 'fc2/W\_fc2'])

start retraining after pruning

step 0, training accuracy 0.98

step 100, training accuracy 1

step 200, training accuracy 1

step 300, training accuracy 1

step 400, training accuracy 1

step 500, training accuracy 1

step 600, training accuracy 1

step 700, training accuracy 1

step 800, training accuracy 1

step 900, training accuracy 0.98

step 1000, training accuracy 1

step 1100, training accuracy 0.98

step 1200, training accuracy 1

step 1300, training accuracy 1

step 1400, training accuracy 1

step 1500, training accuracy 1

step 1600, training accuracy 1

step 1700, training accuracy 1

step 1800, training accuracy 1

step 1900, training accuracy 1

step 2000, training accuracy 1

step 2100, training accuracy 0.98

step 2200, training accuracy 0.98

step 2300, training accuracy 1

step 2400, training accuracy 1

step 2500, training accuracy 1

step 2600, training accuracy 1

step 2700, training accuracy 1

step 2800, training accuracy 1

step 2900, training accuracy 1

step 3000, training accuracy 1

step 3100, training accuracy 1

step 3200, training accuracy 1

step 3300, training accuracy 1

step 3400, training accuracy 1

step 3500, training accuracy 1

step 3600, training accuracy 1

step 3700, training accuracy 1

step 3800, training accuracy 1

step 3900, training accuracy 1

step 4000, training accuracy 1

step 4100, training accuracy 0.98

step 4200, training accuracy 1

step 4300, training accuracy 1

step 4400, training accuracy 0.98

step 4500, training accuracy 1

step 4600, training accuracy 1

step 4700, training accuracy 1

step 4800, training accuracy 1

step 4900, training accuracy 1

test accuracy 0.9918

100

2000

3600

350