e1-313-15521@clserv:~$ python3 "/storage2/home2/e1-313-15521/tipr-third-assignment/src/embeddingclustertsne.py"

WARNING:tensorflow:From /home2/e1-313-15521/.local/lib/python3.7/site-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 /storage2/home2/e1-313-15521/tipr-third-assignment/src/embeddingclustertsne.py:108: batch\_normalization (from tensorflow.python.layers.normalization) is deprecated and will be removed in a future version.

Instructions for updating:

Use keras.layers.batch\_normalization instead.

WARNING:tensorflow:From /home2/e1-313-15521/.local/lib/python3.7/site-packages/tensorflow/contrib/layers/python/layers/layers.py:1624: flatten (from tensorflow.python.layers.core) is deprecated and will be removed in a future version.

Instructions for updating:

Use keras.layers.flatten instead.

WARNING:tensorflow:From /storage2/home2/e1-313-15521/tipr-third-assignment/src/embeddingclustertsne.py:182: 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`.

2019-03-19 16:17:15.107688: I tensorflow/core/platform/cpu\_feature\_guard.cc:141] Your CPU supports instructions that this TensorFlow binary was not compiled to use: AVX2 FMA

2019-03-19 16:17:15.117185: I tensorflow/core/platform/profile\_utils/cpu\_utils.cc:94] CPU Frequency: 2597110000 Hz

2019-03-19 16:17:15.119082: I tensorflow/compiler/xla/service/service.cc:150] XLA service 0x4d96200 executing computations on platform Host. Devices:

2019-03-19 16:17:15.119120: I tensorflow/compiler/xla/service/service.cc:158] StreamExecutor device (0): <undefined>, <undefined>

WARNING:tensorflow:From /home2/e1-313-15521/.local/lib/python3.7/site-packages/tensorflow/python/training/saver.py:1266: checkpoint\_exists (from tensorflow.python.training.checkpoint\_management) is deprecated and will be removed in a future version.

Instructions for updating:

Use standard file APIs to check for files with this prefix.

input\_x

output\_y

W0/Initializer/random\_uniform/shape

W0/Initializer/random\_uniform/min

W0/Initializer/random\_uniform/max

W0/Initializer/random\_uniform/RandomUniform

W0/Initializer/random\_uniform/sub

W0/Initializer/random\_uniform/mul

W0/Initializer/random\_uniform

W0

W0/Assign

W0/read

Conv2D

Relu

MaxPool

batch\_normalization/gamma/Initializer/ones

batch\_normalization/gamma

batch\_normalization/gamma/Assign

batch\_normalization/gamma/read

batch\_normalization/beta/Initializer/zeros

batch\_normalization/beta

batch\_normalization/beta/Assign

batch\_normalization/beta/read

batch\_normalization/moving\_mean/Initializer/zeros

batch\_normalization/moving\_mean

batch\_normalization/moving\_mean/Assign

batch\_normalization/moving\_mean/read

batch\_normalization/moving\_variance/Initializer/ones

batch\_normalization/moving\_variance

batch\_normalization/moving\_variance/Assign

batch\_normalization/moving\_variance/read

batch\_normalization/FusedBatchNorm

batch\_normalization/Const

W1/Initializer/random\_uniform/shape

W1/Initializer/random\_uniform/min

W1/Initializer/random\_uniform/max

W1/Initializer/random\_uniform/RandomUniform

W1/Initializer/random\_uniform/sub

W1/Initializer/random\_uniform/mul

W1/Initializer/random\_uniform

W1

W1/Assign

W1/read

Conv2D\_1

Relu\_1

MaxPool\_1

batch\_normalization\_1/gamma/Initializer/ones

batch\_normalization\_1/gamma

batch\_normalization\_1/gamma/Assign

batch\_normalization\_1/gamma/read

batch\_normalization\_1/beta/Initializer/zeros

batch\_normalization\_1/beta

batch\_normalization\_1/beta/Assign

batch\_normalization\_1/beta/read

batch\_normalization\_1/moving\_mean/Initializer/zeros

batch\_normalization\_1/moving\_mean

batch\_normalization\_1/moving\_mean/Assign

batch\_normalization\_1/moving\_mean/read

batch\_normalization\_1/moving\_variance/Initializer/ones

batch\_normalization\_1/moving\_variance

batch\_normalization\_1/moving\_variance/Assign

batch\_normalization\_1/moving\_variance/read

batch\_normalization\_1/FusedBatchNorm

batch\_normalization\_1/Const

W2/Initializer/random\_uniform/shape

W2/Initializer/random\_uniform/min

W2/Initializer/random\_uniform/max

W2/Initializer/random\_uniform/RandomUniform

W2/Initializer/random\_uniform/sub

W2/Initializer/random\_uniform/mul

W2/Initializer/random\_uniform

W2

W2/Assign

W2/read

Conv2D\_2

Relu\_2

MaxPool\_2

batch\_normalization\_2/gamma/Initializer/ones

batch\_normalization\_2/gamma

batch\_normalization\_2/gamma/Assign

batch\_normalization\_2/gamma/read

batch\_normalization\_2/beta/Initializer/zeros

batch\_normalization\_2/beta

batch\_normalization\_2/beta/Assign

batch\_normalization\_2/beta/read

batch\_normalization\_2/moving\_mean/Initializer/zeros

batch\_normalization\_2/moving\_mean

batch\_normalization\_2/moving\_mean/Assign

batch\_normalization\_2/moving\_mean/read

batch\_normalization\_2/moving\_variance/Initializer/ones

batch\_normalization\_2/moving\_variance

batch\_normalization\_2/moving\_variance/Assign

batch\_normalization\_2/moving\_variance/read

batch\_normalization\_2/FusedBatchNorm

batch\_normalization\_2/Const

W3/Initializer/random\_uniform/shape

W3/Initializer/random\_uniform/min

W3/Initializer/random\_uniform/max

W3/Initializer/random\_uniform/RandomUniform

W3/Initializer/random\_uniform/sub

W3/Initializer/random\_uniform/mul

W3/Initializer/random\_uniform

W3

W3/Assign

W3/read

Conv2D\_3

Relu\_3

MaxPool\_3

batch\_normalization\_3/gamma/Initializer/ones

batch\_normalization\_3/gamma

batch\_normalization\_3/gamma/Assign

batch\_normalization\_3/gamma/read

batch\_normalization\_3/beta/Initializer/zeros

batch\_normalization\_3/beta

batch\_normalization\_3/beta/Assign

batch\_normalization\_3/beta/read

batch\_normalization\_3/moving\_mean/Initializer/zeros

batch\_normalization\_3/moving\_mean

batch\_normalization\_3/moving\_mean/Assign

batch\_normalization\_3/moving\_mean/read

batch\_normalization\_3/moving\_variance/Initializer/ones

batch\_normalization\_3/moving\_variance

batch\_normalization\_3/moving\_variance/Assign

batch\_normalization\_3/moving\_variance/read

batch\_normalization\_3/FusedBatchNorm

batch\_normalization\_3/Const

W4/Initializer/random\_uniform/shape

W4/Initializer/random\_uniform/min

W4/Initializer/random\_uniform/max

W4/Initializer/random\_uniform/RandomUniform

W4/Initializer/random\_uniform/sub

W4/Initializer/random\_uniform/mul

W4/Initializer/random\_uniform

W4

W4/Assign

W4/read

Conv2D\_4

Relu\_4

MaxPool\_4

batch\_normalization\_4/gamma/Initializer/ones

batch\_normalization\_4/gamma

batch\_normalization\_4/gamma/Assign

batch\_normalization\_4/gamma/read

batch\_normalization\_4/beta/Initializer/zeros

batch\_normalization\_4/beta

batch\_normalization\_4/beta/Assign

batch\_normalization\_4/beta/read

batch\_normalization\_4/moving\_mean/Initializer/zeros

batch\_normalization\_4/moving\_mean

batch\_normalization\_4/moving\_mean/Assign

batch\_normalization\_4/moving\_mean/read

batch\_normalization\_4/moving\_variance/Initializer/ones

batch\_normalization\_4/moving\_variance

batch\_normalization\_4/moving\_variance/Assign

batch\_normalization\_4/moving\_variance/read

batch\_normalization\_4/FusedBatchNorm

batch\_normalization\_4/Const

W5/Initializer/random\_uniform/shape

W5/Initializer/random\_uniform/min

W5/Initializer/random\_uniform/max

W5/Initializer/random\_uniform/RandomUniform

W5/Initializer/random\_uniform/sub

W5/Initializer/random\_uniform/mul

W5/Initializer/random\_uniform

W5

W5/Assign

W5/read

Conv2D\_5

Relu\_5

MaxPool\_5

batch\_normalization\_5/gamma/Initializer/ones

batch\_normalization\_5/gamma

batch\_normalization\_5/gamma/Assign

batch\_normalization\_5/gamma/read

batch\_normalization\_5/beta/Initializer/zeros

batch\_normalization\_5/beta

batch\_normalization\_5/beta/Assign

batch\_normalization\_5/beta/read

batch\_normalization\_5/moving\_mean/Initializer/zeros

batch\_normalization\_5/moving\_mean

batch\_normalization\_5/moving\_mean/Assign

batch\_normalization\_5/moving\_mean/read

batch\_normalization\_5/moving\_variance/Initializer/ones

batch\_normalization\_5/moving\_variance

batch\_normalization\_5/moving\_variance/Assign

batch\_normalization\_5/moving\_variance/read

batch\_normalization\_5/FusedBatchNorm

batch\_normalization\_5/Const

Flatten/flatten/Shape

Flatten/flatten/strided\_slice/stack

Flatten/flatten/strided\_slice/stack\_1

Flatten/flatten/strided\_slice/stack\_2

Flatten/flatten/strided\_slice

Flatten/flatten/Reshape/shape/1

Flatten/flatten/Reshape/shape

Flatten/flatten/Reshape

fully\_connected/weights/Initializer/random\_uniform/shape

fully\_connected/weights/Initializer/random\_uniform/min

fully\_connected/weights/Initializer/random\_uniform/max

fully\_connected/weights/Initializer/random\_uniform/RandomUniform

fully\_connected/weights/Initializer/random\_uniform/sub

fully\_connected/weights/Initializer/random\_uniform/mul

fully\_connected/weights/Initializer/random\_uniform

fully\_connected/weights

fully\_connected/weights/Assign

fully\_connected/weights/read

fully\_connected/biases/Initializer/zeros

fully\_connected/biases

fully\_connected/biases/Assign

fully\_connected/biases/read

fully\_connected/MatMul

fully\_connected/BiasAdd

fully\_connected/Relu

batch\_normalization\_6/gamma/Initializer/ones

batch\_normalization\_6/gamma

batch\_normalization\_6/gamma/Assign

batch\_normalization\_6/gamma/read

batch\_normalization\_6/beta/Initializer/zeros

batch\_normalization\_6/beta

batch\_normalization\_6/beta/Assign

batch\_normalization\_6/beta/read

batch\_normalization\_6/moving\_mean/Initializer/zeros

batch\_normalization\_6/moving\_mean

batch\_normalization\_6/moving\_mean/Assign

batch\_normalization\_6/moving\_mean/read

batch\_normalization\_6/moving\_variance/Initializer/ones

batch\_normalization\_6/moving\_variance

batch\_normalization\_6/moving\_variance/Assign

batch\_normalization\_6/moving\_variance/read

batch\_normalization\_6/batchnorm/add/y

batch\_normalization\_6/batchnorm/add

batch\_normalization\_6/batchnorm/Rsqrt

batch\_normalization\_6/batchnorm/mul

batch\_normalization\_6/batchnorm/mul\_1

batch\_normalization\_6/batchnorm/mul\_2

batch\_normalization\_6/batchnorm/sub

batch\_normalization\_6/batchnorm/add\_1

fully\_connected\_1/weights/Initializer/random\_uniform/shape

fully\_connected\_1/weights/Initializer/random\_uniform/min

fully\_connected\_1/weights/Initializer/random\_uniform/max

fully\_connected\_1/weights/Initializer/random\_uniform/RandomUniform

fully\_connected\_1/weights/Initializer/random\_uniform/sub

fully\_connected\_1/weights/Initializer/random\_uniform/mul

fully\_connected\_1/weights/Initializer/random\_uniform

fully\_connected\_1/weights

fully\_connected\_1/weights/Assign

fully\_connected\_1/weights/read

fully\_connected\_1/biases/Initializer/zeros

fully\_connected\_1/biases

fully\_connected\_1/biases/Assign

fully\_connected\_1/biases/read

fully\_connected\_1/MatMul

fully\_connected\_1/BiasAdd

fully\_connected\_1/Relu

batch\_normalization\_7/gamma/Initializer/ones

batch\_normalization\_7/gamma

batch\_normalization\_7/gamma/Assign

batch\_normalization\_7/gamma/read

batch\_normalization\_7/beta/Initializer/zeros

batch\_normalization\_7/beta

batch\_normalization\_7/beta/Assign

batch\_normalization\_7/beta/read

batch\_normalization\_7/moving\_mean/Initializer/zeros

batch\_normalization\_7/moving\_mean

batch\_normalization\_7/moving\_mean/Assign

batch\_normalization\_7/moving\_mean/read

batch\_normalization\_7/moving\_variance/Initializer/ones

batch\_normalization\_7/moving\_variance

batch\_normalization\_7/moving\_variance/Assign

batch\_normalization\_7/moving\_variance/read

batch\_normalization\_7/batchnorm/add/y

batch\_normalization\_7/batchnorm/add

batch\_normalization\_7/batchnorm/Rsqrt

batch\_normalization\_7/batchnorm/mul

batch\_normalization\_7/batchnorm/mul\_1

batch\_normalization\_7/batchnorm/mul\_2

batch\_normalization\_7/batchnorm/sub

batch\_normalization\_7/batchnorm/add\_1

fully\_connected\_2/weights/Initializer/random\_uniform/shape

fully\_connected\_2/weights/Initializer/random\_uniform/min

fully\_connected\_2/weights/Initializer/random\_uniform/max

fully\_connected\_2/weights/Initializer/random\_uniform/RandomUniform

fully\_connected\_2/weights/Initializer/random\_uniform/sub

fully\_connected\_2/weights/Initializer/random\_uniform/mul

fully\_connected\_2/weights/Initializer/random\_uniform

fully\_connected\_2/weights

fully\_connected\_2/weights/Assign

fully\_connected\_2/weights/read

fully\_connected\_2/biases/Initializer/zeros

fully\_connected\_2/biases

fully\_connected\_2/biases/Assign

fully\_connected\_2/biases/read

fully\_connected\_2/MatMul

fully\_connected\_2/BiasAdd

softmax\_cross\_entropy\_with\_logits\_sg/labels\_stop\_gradient

softmax\_cross\_entropy\_with\_logits\_sg/Rank

softmax\_cross\_entropy\_with\_logits\_sg/Shape

softmax\_cross\_entropy\_with\_logits\_sg/Rank\_1

softmax\_cross\_entropy\_with\_logits\_sg/Shape\_1

softmax\_cross\_entropy\_with\_logits\_sg/Sub/y

softmax\_cross\_entropy\_with\_logits\_sg/Sub

softmax\_cross\_entropy\_with\_logits\_sg/Slice/begin

softmax\_cross\_entropy\_with\_logits\_sg/Slice/size

softmax\_cross\_entropy\_with\_logits\_sg/Slice

softmax\_cross\_entropy\_with\_logits\_sg/concat/values\_0

softmax\_cross\_entropy\_with\_logits\_sg/concat/axis

softmax\_cross\_entropy\_with\_logits\_sg/concat

softmax\_cross\_entropy\_with\_logits\_sg/Reshape

softmax\_cross\_entropy\_with\_logits\_sg/Rank\_2

softmax\_cross\_entropy\_with\_logits\_sg/Shape\_2

softmax\_cross\_entropy\_with\_logits\_sg/Sub\_1/y

softmax\_cross\_entropy\_with\_logits\_sg/Sub\_1

softmax\_cross\_entropy\_with\_logits\_sg/Slice\_1/begin

softmax\_cross\_entropy\_with\_logits\_sg/Slice\_1/size

softmax\_cross\_entropy\_with\_logits\_sg/Slice\_1

softmax\_cross\_entropy\_with\_logits\_sg/concat\_1/values\_0

softmax\_cross\_entropy\_with\_logits\_sg/concat\_1/axis

softmax\_cross\_entropy\_with\_logits\_sg/concat\_1

softmax\_cross\_entropy\_with\_logits\_sg/Reshape\_1

softmax\_cross\_entropy\_with\_logits\_sg

softmax\_cross\_entropy\_with\_logits\_sg/Sub\_2/y

softmax\_cross\_entropy\_with\_logits\_sg/Sub\_2

softmax\_cross\_entropy\_with\_logits\_sg/Slice\_2/begin

softmax\_cross\_entropy\_with\_logits\_sg/Slice\_2/size

softmax\_cross\_entropy\_with\_logits\_sg/Slice\_2

softmax\_cross\_entropy\_with\_logits\_sg/Reshape\_2

Const

Mean

gradients/Shape

gradients/grad\_ys\_0

gradients/Fill

gradients/Mean\_grad/Reshape/shape

gradients/Mean\_grad/Reshape

gradients/Mean\_grad/Shape

gradients/Mean\_grad/Tile

gradients/Mean\_grad/Shape\_1

gradients/Mean\_grad/Shape\_2

gradients/Mean\_grad/Const

gradients/Mean\_grad/Prod

gradients/Mean\_grad/Const\_1

gradients/Mean\_grad/Prod\_1

gradients/Mean\_grad/Maximum/y

gradients/Mean\_grad/Maximum

gradients/Mean\_grad/floordiv

gradients/Mean\_grad/Cast

gradients/Mean\_grad/truediv

gradients/softmax\_cross\_entropy\_with\_logits\_sg/Reshape\_2\_grad/Shape

gradients/softmax\_cross\_entropy\_with\_logits\_sg/Reshape\_2\_grad/Reshape

gradients/zeros\_like

gradients/softmax\_cross\_entropy\_with\_logits\_sg\_grad/ExpandDims/dim

gradients/softmax\_cross\_entropy\_with\_logits\_sg\_grad/ExpandDims

gradients/softmax\_cross\_entropy\_with\_logits\_sg\_grad/mul

gradients/softmax\_cross\_entropy\_with\_logits\_sg\_grad/LogSoftmax

gradients/softmax\_cross\_entropy\_with\_logits\_sg\_grad/Neg

gradients/softmax\_cross\_entropy\_with\_logits\_sg\_grad/ExpandDims\_1/dim

gradients/softmax\_cross\_entropy\_with\_logits\_sg\_grad/ExpandDims\_1

gradients/softmax\_cross\_entropy\_with\_logits\_sg\_grad/mul\_1

gradients/softmax\_cross\_entropy\_with\_logits\_sg\_grad/tuple/group\_deps

gradients/softmax\_cross\_entropy\_with\_logits\_sg\_grad/tuple/control\_dependency

gradients/softmax\_cross\_entropy\_with\_logits\_sg\_grad/tuple/control\_dependency\_1

gradients/softmax\_cross\_entropy\_with\_logits\_sg/Reshape\_grad/Shape

gradients/softmax\_cross\_entropy\_with\_logits\_sg/Reshape\_grad/Reshape

gradients/fully\_connected\_2/BiasAdd\_grad/BiasAddGrad

gradients/fully\_connected\_2/BiasAdd\_grad/tuple/group\_deps

gradients/fully\_connected\_2/BiasAdd\_grad/tuple/control\_dependency

gradients/fully\_connected\_2/BiasAdd\_grad/tuple/control\_dependency\_1

gradients/fully\_connected\_2/MatMul\_grad/MatMul

gradients/fully\_connected\_2/MatMul\_grad/MatMul\_1

gradients/fully\_connected\_2/MatMul\_grad/tuple/group\_deps

gradients/fully\_connected\_2/MatMul\_grad/tuple/control\_dependency

gradients/fully\_connected\_2/MatMul\_grad/tuple/control\_dependency\_1

gradients/batch\_normalization\_7/batchnorm/add\_1\_grad/Shape

gradients/batch\_normalization\_7/batchnorm/add\_1\_grad/Shape\_1

gradients/batch\_normalization\_7/batchnorm/add\_1\_grad/BroadcastGradientArgs

gradients/batch\_normalization\_7/batchnorm/add\_1\_grad/Sum

gradients/batch\_normalization\_7/batchnorm/add\_1\_grad/Reshape

gradients/batch\_normalization\_7/batchnorm/add\_1\_grad/Sum\_1

gradients/batch\_normalization\_7/batchnorm/add\_1\_grad/Reshape\_1

gradients/batch\_normalization\_7/batchnorm/add\_1\_grad/tuple/group\_deps

gradients/batch\_normalization\_7/batchnorm/add\_1\_grad/tuple/control\_dependency

gradients/batch\_normalization\_7/batchnorm/add\_1\_grad/tuple/control\_dependency\_1

gradients/batch\_normalization\_7/batchnorm/mul\_1\_grad/Shape

gradients/batch\_normalization\_7/batchnorm/mul\_1\_grad/Shape\_1

gradients/batch\_normalization\_7/batchnorm/mul\_1\_grad/BroadcastGradientArgs

gradients/batch\_normalization\_7/batchnorm/mul\_1\_grad/Mul

gradients/batch\_normalization\_7/batchnorm/mul\_1\_grad/Sum

gradients/batch\_normalization\_7/batchnorm/mul\_1\_grad/Reshape

gradients/batch\_normalization\_7/batchnorm/mul\_1\_grad/Mul\_1

gradients/batch\_normalization\_7/batchnorm/mul\_1\_grad/Sum\_1

gradients/batch\_normalization\_7/batchnorm/mul\_1\_grad/Reshape\_1

gradients/batch\_normalization\_7/batchnorm/mul\_1\_grad/tuple/group\_deps

gradients/batch\_normalization\_7/batchnorm/mul\_1\_grad/tuple/control\_dependency

gradients/batch\_normalization\_7/batchnorm/mul\_1\_grad/tuple/control\_dependency\_1

gradients/batch\_normalization\_7/batchnorm/sub\_grad/Neg

gradients/batch\_normalization\_7/batchnorm/sub\_grad/tuple/group\_deps

gradients/batch\_normalization\_7/batchnorm/sub\_grad/tuple/control\_dependency

gradients/batch\_normalization\_7/batchnorm/sub\_grad/tuple/control\_dependency\_1

gradients/fully\_connected\_1/Relu\_grad/ReluGrad

gradients/batch\_normalization\_7/batchnorm/mul\_2\_grad/Mul

gradients/batch\_normalization\_7/batchnorm/mul\_2\_grad/Mul\_1

gradients/batch\_normalization\_7/batchnorm/mul\_2\_grad/tuple/group\_deps

gradients/batch\_normalization\_7/batchnorm/mul\_2\_grad/tuple/control\_dependency

gradients/batch\_normalization\_7/batchnorm/mul\_2\_grad/tuple/control\_dependency\_1

gradients/fully\_connected\_1/BiasAdd\_grad/BiasAddGrad

gradients/fully\_connected\_1/BiasAdd\_grad/tuple/group\_deps

gradients/fully\_connected\_1/BiasAdd\_grad/tuple/control\_dependency

gradients/fully\_connected\_1/BiasAdd\_grad/tuple/control\_dependency\_1

gradients/AddN

gradients/batch\_normalization\_7/batchnorm/mul\_grad/Mul

gradients/batch\_normalization\_7/batchnorm/mul\_grad/Mul\_1

gradients/batch\_normalization\_7/batchnorm/mul\_grad/tuple/group\_deps

gradients/batch\_normalization\_7/batchnorm/mul\_grad/tuple/control\_dependency

gradients/batch\_normalization\_7/batchnorm/mul\_grad/tuple/control\_dependency\_1

gradients/fully\_connected\_1/MatMul\_grad/MatMul

gradients/fully\_connected\_1/MatMul\_grad/MatMul\_1

gradients/fully\_connected\_1/MatMul\_grad/tuple/group\_deps

gradients/fully\_connected\_1/MatMul\_grad/tuple/control\_dependency

gradients/fully\_connected\_1/MatMul\_grad/tuple/control\_dependency\_1

gradients/batch\_normalization\_6/batchnorm/add\_1\_grad/Shape

gradients/batch\_normalization\_6/batchnorm/add\_1\_grad/Shape\_1

gradients/batch\_normalization\_6/batchnorm/add\_1\_grad/BroadcastGradientArgs

gradients/batch\_normalization\_6/batchnorm/add\_1\_grad/Sum

gradients/batch\_normalization\_6/batchnorm/add\_1\_grad/Reshape

gradients/batch\_normalization\_6/batchnorm/add\_1\_grad/Sum\_1

gradients/batch\_normalization\_6/batchnorm/add\_1\_grad/Reshape\_1

gradients/batch\_normalization\_6/batchnorm/add\_1\_grad/tuple/group\_deps

gradients/batch\_normalization\_6/batchnorm/add\_1\_grad/tuple/control\_dependency

gradients/batch\_normalization\_6/batchnorm/add\_1\_grad/tuple/control\_dependency\_1

gradients/batch\_normalization\_6/batchnorm/mul\_1\_grad/Shape

gradients/batch\_normalization\_6/batchnorm/mul\_1\_grad/Shape\_1

gradients/batch\_normalization\_6/batchnorm/mul\_1\_grad/BroadcastGradientArgs

gradients/batch\_normalization\_6/batchnorm/mul\_1\_grad/Mul

gradients/batch\_normalization\_6/batchnorm/mul\_1\_grad/Sum

gradients/batch\_normalization\_6/batchnorm/mul\_1\_grad/Reshape

gradients/batch\_normalization\_6/batchnorm/mul\_1\_grad/Mul\_1

gradients/batch\_normalization\_6/batchnorm/mul\_1\_grad/Sum\_1

gradients/batch\_normalization\_6/batchnorm/mul\_1\_grad/Reshape\_1

gradients/batch\_normalization\_6/batchnorm/mul\_1\_grad/tuple/group\_deps

gradients/batch\_normalization\_6/batchnorm/mul\_1\_grad/tuple/control\_dependency

gradients/batch\_normalization\_6/batchnorm/mul\_1\_grad/tuple/control\_dependency\_1

gradients/batch\_normalization\_6/batchnorm/sub\_grad/Neg

gradients/batch\_normalization\_6/batchnorm/sub\_grad/tuple/group\_deps

gradients/batch\_normalization\_6/batchnorm/sub\_grad/tuple/control\_dependency

gradients/batch\_normalization\_6/batchnorm/sub\_grad/tuple/control\_dependency\_1

gradients/fully\_connected/Relu\_grad/ReluGrad

gradients/batch\_normalization\_6/batchnorm/mul\_2\_grad/Mul

gradients/batch\_normalization\_6/batchnorm/mul\_2\_grad/Mul\_1

gradients/batch\_normalization\_6/batchnorm/mul\_2\_grad/tuple/group\_deps

gradients/batch\_normalization\_6/batchnorm/mul\_2\_grad/tuple/control\_dependency

gradients/batch\_normalization\_6/batchnorm/mul\_2\_grad/tuple/control\_dependency\_1

gradients/fully\_connected/BiasAdd\_grad/BiasAddGrad

gradients/fully\_connected/BiasAdd\_grad/tuple/group\_deps

gradients/fully\_connected/BiasAdd\_grad/tuple/control\_dependency

gradients/fully\_connected/BiasAdd\_grad/tuple/control\_dependency\_1

gradients/AddN\_1

gradients/batch\_normalization\_6/batchnorm/mul\_grad/Mul

gradients/batch\_normalization\_6/batchnorm/mul\_grad/Mul\_1

gradients/batch\_normalization\_6/batchnorm/mul\_grad/tuple/group\_deps

gradients/batch\_normalization\_6/batchnorm/mul\_grad/tuple/control\_dependency

gradients/batch\_normalization\_6/batchnorm/mul\_grad/tuple/control\_dependency\_1

gradients/fully\_connected/MatMul\_grad/MatMul

gradients/fully\_connected/MatMul\_grad/MatMul\_1

gradients/fully\_connected/MatMul\_grad/tuple/group\_deps

gradients/fully\_connected/MatMul\_grad/tuple/control\_dependency

gradients/fully\_connected/MatMul\_grad/tuple/control\_dependency\_1

gradients/Flatten/flatten/Reshape\_grad/Shape

gradients/Flatten/flatten/Reshape\_grad/Reshape

gradients/zeros\_like\_1

gradients/zeros\_like\_2

gradients/zeros\_like\_3

gradients/zeros\_like\_4

gradients/batch\_normalization\_5/FusedBatchNorm\_grad/FusedBatchNormGrad

gradients/batch\_normalization\_5/FusedBatchNorm\_grad/tuple/group\_deps

gradients/batch\_normalization\_5/FusedBatchNorm\_grad/tuple/control\_dependency

gradients/batch\_normalization\_5/FusedBatchNorm\_grad/tuple/control\_dependency\_1

gradients/batch\_normalization\_5/FusedBatchNorm\_grad/tuple/control\_dependency\_2

gradients/MaxPool\_5\_grad/MaxPoolGrad

gradients/Relu\_5\_grad/ReluGrad

gradients/Conv2D\_5\_grad/ShapeN

gradients/Conv2D\_5\_grad/Conv2DBackpropInput

gradients/Conv2D\_5\_grad/Conv2DBackpropFilter

gradients/Conv2D\_5\_grad/tuple/group\_deps

gradients/Conv2D\_5\_grad/tuple/control\_dependency

gradients/Conv2D\_5\_grad/tuple/control\_dependency\_1

gradients/zeros\_like\_5

gradients/zeros\_like\_6

gradients/zeros\_like\_7

gradients/zeros\_like\_8

gradients/batch\_normalization\_4/FusedBatchNorm\_grad/FusedBatchNormGrad

gradients/batch\_normalization\_4/FusedBatchNorm\_grad/tuple/group\_deps

gradients/batch\_normalization\_4/FusedBatchNorm\_grad/tuple/control\_dependency

gradients/batch\_normalization\_4/FusedBatchNorm\_grad/tuple/control\_dependency\_1

gradients/batch\_normalization\_4/FusedBatchNorm\_grad/tuple/control\_dependency\_2

gradients/MaxPool\_4\_grad/MaxPoolGrad

gradients/Relu\_4\_grad/ReluGrad

gradients/Conv2D\_4\_grad/ShapeN

gradients/Conv2D\_4\_grad/Conv2DBackpropInput

gradients/Conv2D\_4\_grad/Conv2DBackpropFilter

gradients/Conv2D\_4\_grad/tuple/group\_deps

gradients/Conv2D\_4\_grad/tuple/control\_dependency

gradients/Conv2D\_4\_grad/tuple/control\_dependency\_1

gradients/zeros\_like\_9

gradients/zeros\_like\_10

gradients/zeros\_like\_11

gradients/zeros\_like\_12

gradients/batch\_normalization\_3/FusedBatchNorm\_grad/FusedBatchNormGrad

gradients/batch\_normalization\_3/FusedBatchNorm\_grad/tuple/group\_deps

gradients/batch\_normalization\_3/FusedBatchNorm\_grad/tuple/control\_dependency

gradients/batch\_normalization\_3/FusedBatchNorm\_grad/tuple/control\_dependency\_1

gradients/batch\_normalization\_3/FusedBatchNorm\_grad/tuple/control\_dependency\_2

gradients/MaxPool\_3\_grad/MaxPoolGrad

gradients/Relu\_3\_grad/ReluGrad

gradients/Conv2D\_3\_grad/ShapeN

gradients/Conv2D\_3\_grad/Conv2DBackpropInput

gradients/Conv2D\_3\_grad/Conv2DBackpropFilter

gradients/Conv2D\_3\_grad/tuple/group\_deps

gradients/Conv2D\_3\_grad/tuple/control\_dependency

gradients/Conv2D\_3\_grad/tuple/control\_dependency\_1

gradients/zeros\_like\_13

gradients/zeros\_like\_14

gradients/zeros\_like\_15

gradients/zeros\_like\_16

gradients/batch\_normalization\_2/FusedBatchNorm\_grad/FusedBatchNormGrad

gradients/batch\_normalization\_2/FusedBatchNorm\_grad/tuple/group\_deps

gradients/batch\_normalization\_2/FusedBatchNorm\_grad/tuple/control\_dependency

gradients/batch\_normalization\_2/FusedBatchNorm\_grad/tuple/control\_dependency\_1

gradients/batch\_normalization\_2/FusedBatchNorm\_grad/tuple/control\_dependency\_2

gradients/MaxPool\_2\_grad/MaxPoolGrad

gradients/Relu\_2\_grad/ReluGrad

gradients/Conv2D\_2\_grad/ShapeN

gradients/Conv2D\_2\_grad/Conv2DBackpropInput

gradients/Conv2D\_2\_grad/Conv2DBackpropFilter

gradients/Conv2D\_2\_grad/tuple/group\_deps

gradients/Conv2D\_2\_grad/tuple/control\_dependency

gradients/Conv2D\_2\_grad/tuple/control\_dependency\_1

gradients/zeros\_like\_17

gradients/zeros\_like\_18

gradients/zeros\_like\_19

gradients/zeros\_like\_20

gradients/batch\_normalization\_1/FusedBatchNorm\_grad/FusedBatchNormGrad

gradients/batch\_normalization\_1/FusedBatchNorm\_grad/tuple/group\_deps

gradients/batch\_normalization\_1/FusedBatchNorm\_grad/tuple/control\_dependency

gradients/batch\_normalization\_1/FusedBatchNorm\_grad/tuple/control\_dependency\_1

gradients/batch\_normalization\_1/FusedBatchNorm\_grad/tuple/control\_dependency\_2

gradients/MaxPool\_1\_grad/MaxPoolGrad

gradients/Relu\_1\_grad/ReluGrad

gradients/Conv2D\_1\_grad/ShapeN

gradients/Conv2D\_1\_grad/Conv2DBackpropInput

gradients/Conv2D\_1\_grad/Conv2DBackpropFilter

gradients/Conv2D\_1\_grad/tuple/group\_deps

gradients/Conv2D\_1\_grad/tuple/control\_dependency

gradients/Conv2D\_1\_grad/tuple/control\_dependency\_1

gradients/zeros\_like\_21

gradients/zeros\_like\_22

gradients/zeros\_like\_23

gradients/zeros\_like\_24

gradients/batch\_normalization/FusedBatchNorm\_grad/FusedBatchNormGrad

gradients/batch\_normalization/FusedBatchNorm\_grad/tuple/group\_deps

gradients/batch\_normalization/FusedBatchNorm\_grad/tuple/control\_dependency

gradients/batch\_normalization/FusedBatchNorm\_grad/tuple/control\_dependency\_1

gradients/batch\_normalization/FusedBatchNorm\_grad/tuple/control\_dependency\_2

gradients/MaxPool\_grad/MaxPoolGrad

gradients/Relu\_grad/ReluGrad

gradients/Conv2D\_grad/ShapeN

gradients/Conv2D\_grad/Conv2DBackpropInput

gradients/Conv2D\_grad/Conv2DBackpropFilter

gradients/Conv2D\_grad/tuple/group\_deps

gradients/Conv2D\_grad/tuple/control\_dependency

gradients/Conv2D\_grad/tuple/control\_dependency\_1

beta1\_power/initial\_value

beta1\_power

beta1\_power/Assign

beta1\_power/read

beta2\_power/initial\_value

beta2\_power

beta2\_power/Assign

beta2\_power/read

W0/Adam/Initializer/zeros

W0/Adam

W0/Adam/Assign

W0/Adam/read

W0/Adam\_1/Initializer/zeros

W0/Adam\_1

W0/Adam\_1/Assign

W0/Adam\_1/read

batch\_normalization/gamma/Adam/Initializer/zeros

batch\_normalization/gamma/Adam

batch\_normalization/gamma/Adam/Assign

batch\_normalization/gamma/Adam/read

batch\_normalization/gamma/Adam\_1/Initializer/zeros

batch\_normalization/gamma/Adam\_1

batch\_normalization/gamma/Adam\_1/Assign

batch\_normalization/gamma/Adam\_1/read

batch\_normalization/beta/Adam/Initializer/zeros

batch\_normalization/beta/Adam

batch\_normalization/beta/Adam/Assign

batch\_normalization/beta/Adam/read

batch\_normalization/beta/Adam\_1/Initializer/zeros

batch\_normalization/beta/Adam\_1

batch\_normalization/beta/Adam\_1/Assign

batch\_normalization/beta/Adam\_1/read

W1/Adam/Initializer/zeros/shape\_as\_tensor

W1/Adam/Initializer/zeros/Const

W1/Adam/Initializer/zeros

W1/Adam

W1/Adam/Assign

W1/Adam/read

W1/Adam\_1/Initializer/zeros/shape\_as\_tensor

W1/Adam\_1/Initializer/zeros/Const

W1/Adam\_1/Initializer/zeros

W1/Adam\_1

W1/Adam\_1/Assign

W1/Adam\_1/read

batch\_normalization\_1/gamma/Adam/Initializer/zeros

batch\_normalization\_1/gamma/Adam

batch\_normalization\_1/gamma/Adam/Assign

batch\_normalization\_1/gamma/Adam/read

batch\_normalization\_1/gamma/Adam\_1/Initializer/zeros

batch\_normalization\_1/gamma/Adam\_1

batch\_normalization\_1/gamma/Adam\_1/Assign

batch\_normalization\_1/gamma/Adam\_1/read

batch\_normalization\_1/beta/Adam/Initializer/zeros

batch\_normalization\_1/beta/Adam

batch\_normalization\_1/beta/Adam/Assign

batch\_normalization\_1/beta/Adam/read

batch\_normalization\_1/beta/Adam\_1/Initializer/zeros

batch\_normalization\_1/beta/Adam\_1

batch\_normalization\_1/beta/Adam\_1/Assign

batch\_normalization\_1/beta/Adam\_1/read

W2/Adam/Initializer/zeros/shape\_as\_tensor

W2/Adam/Initializer/zeros/Const

W2/Adam/Initializer/zeros

W2/Adam

W2/Adam/Assign

W2/Adam/read

W2/Adam\_1/Initializer/zeros/shape\_as\_tensor

W2/Adam\_1/Initializer/zeros/Const

W2/Adam\_1/Initializer/zeros

W2/Adam\_1

W2/Adam\_1/Assign

W2/Adam\_1/read

batch\_normalization\_2/gamma/Adam/Initializer/zeros

batch\_normalization\_2/gamma/Adam

batch\_normalization\_2/gamma/Adam/Assign

batch\_normalization\_2/gamma/Adam/read

batch\_normalization\_2/gamma/Adam\_1/Initializer/zeros

batch\_normalization\_2/gamma/Adam\_1

batch\_normalization\_2/gamma/Adam\_1/Assign

batch\_normalization\_2/gamma/Adam\_1/read

batch\_normalization\_2/beta/Adam/Initializer/zeros

batch\_normalization\_2/beta/Adam

batch\_normalization\_2/beta/Adam/Assign

batch\_normalization\_2/beta/Adam/read

batch\_normalization\_2/beta/Adam\_1/Initializer/zeros

batch\_normalization\_2/beta/Adam\_1

batch\_normalization\_2/beta/Adam\_1/Assign

batch\_normalization\_2/beta/Adam\_1/read

W3/Adam/Initializer/zeros/shape\_as\_tensor

W3/Adam/Initializer/zeros/Const

W3/Adam/Initializer/zeros

W3/Adam

W3/Adam/Assign

W3/Adam/read

W3/Adam\_1/Initializer/zeros/shape\_as\_tensor

W3/Adam\_1/Initializer/zeros/Const

W3/Adam\_1/Initializer/zeros

W3/Adam\_1

W3/Adam\_1/Assign

W3/Adam\_1/read

batch\_normalization\_3/gamma/Adam/Initializer/zeros

batch\_normalization\_3/gamma/Adam

batch\_normalization\_3/gamma/Adam/Assign

batch\_normalization\_3/gamma/Adam/read

batch\_normalization\_3/gamma/Adam\_1/Initializer/zeros

batch\_normalization\_3/gamma/Adam\_1

batch\_normalization\_3/gamma/Adam\_1/Assign

batch\_normalization\_3/gamma/Adam\_1/read

batch\_normalization\_3/beta/Adam/Initializer/zeros

batch\_normalization\_3/beta/Adam

batch\_normalization\_3/beta/Adam/Assign

batch\_normalization\_3/beta/Adam/read

batch\_normalization\_3/beta/Adam\_1/Initializer/zeros

batch\_normalization\_3/beta/Adam\_1

batch\_normalization\_3/beta/Adam\_1/Assign

batch\_normalization\_3/beta/Adam\_1/read

W4/Adam/Initializer/zeros/shape\_as\_tensor

W4/Adam/Initializer/zeros/Const

W4/Adam/Initializer/zeros

W4/Adam

W4/Adam/Assign

W4/Adam/read

W4/Adam\_1/Initializer/zeros/shape\_as\_tensor

W4/Adam\_1/Initializer/zeros/Const

W4/Adam\_1/Initializer/zeros

W4/Adam\_1

W4/Adam\_1/Assign

W4/Adam\_1/read

batch\_normalization\_4/gamma/Adam/Initializer/zeros

batch\_normalization\_4/gamma/Adam

batch\_normalization\_4/gamma/Adam/Assign

batch\_normalization\_4/gamma/Adam/read

batch\_normalization\_4/gamma/Adam\_1/Initializer/zeros

batch\_normalization\_4/gamma/Adam\_1

batch\_normalization\_4/gamma/Adam\_1/Assign

batch\_normalization\_4/gamma/Adam\_1/read

batch\_normalization\_4/beta/Adam/Initializer/zeros

batch\_normalization\_4/beta/Adam

batch\_normalization\_4/beta/Adam/Assign

batch\_normalization\_4/beta/Adam/read

batch\_normalization\_4/beta/Adam\_1/Initializer/zeros

batch\_normalization\_4/beta/Adam\_1

batch\_normalization\_4/beta/Adam\_1/Assign

batch\_normalization\_4/beta/Adam\_1/read

W5/Adam/Initializer/zeros/shape\_as\_tensor

W5/Adam/Initializer/zeros/Const

W5/Adam/Initializer/zeros

W5/Adam

W5/Adam/Assign

W5/Adam/read

W5/Adam\_1/Initializer/zeros/shape\_as\_tensor

W5/Adam\_1/Initializer/zeros/Const

W5/Adam\_1/Initializer/zeros

W5/Adam\_1

W5/Adam\_1/Assign

W5/Adam\_1/read

batch\_normalization\_5/gamma/Adam/Initializer/zeros

batch\_normalization\_5/gamma/Adam

batch\_normalization\_5/gamma/Adam/Assign

batch\_normalization\_5/gamma/Adam/read

batch\_normalization\_5/gamma/Adam\_1/Initializer/zeros

batch\_normalization\_5/gamma/Adam\_1

batch\_normalization\_5/gamma/Adam\_1/Assign

batch\_normalization\_5/gamma/Adam\_1/read

batch\_normalization\_5/beta/Adam/Initializer/zeros

batch\_normalization\_5/beta/Adam

batch\_normalization\_5/beta/Adam/Assign

batch\_normalization\_5/beta/Adam/read

batch\_normalization\_5/beta/Adam\_1/Initializer/zeros

batch\_normalization\_5/beta/Adam\_1

batch\_normalization\_5/beta/Adam\_1/Assign

batch\_normalization\_5/beta/Adam\_1/read

fully\_connected/weights/Adam/Initializer/zeros/shape\_as\_tensor

fully\_connected/weights/Adam/Initializer/zeros/Const

fully\_connected/weights/Adam/Initializer/zeros

fully\_connected/weights/Adam

fully\_connected/weights/Adam/Assign

fully\_connected/weights/Adam/read

fully\_connected/weights/Adam\_1/Initializer/zeros/shape\_as\_tensor

fully\_connected/weights/Adam\_1/Initializer/zeros/Const

fully\_connected/weights/Adam\_1/Initializer/zeros

fully\_connected/weights/Adam\_1

fully\_connected/weights/Adam\_1/Assign

fully\_connected/weights/Adam\_1/read

fully\_connected/biases/Adam/Initializer/zeros

fully\_connected/biases/Adam

fully\_connected/biases/Adam/Assign

fully\_connected/biases/Adam/read

fully\_connected/biases/Adam\_1/Initializer/zeros

fully\_connected/biases/Adam\_1

fully\_connected/biases/Adam\_1/Assign

fully\_connected/biases/Adam\_1/read

batch\_normalization\_6/gamma/Adam/Initializer/zeros

batch\_normalization\_6/gamma/Adam

batch\_normalization\_6/gamma/Adam/Assign

batch\_normalization\_6/gamma/Adam/read

batch\_normalization\_6/gamma/Adam\_1/Initializer/zeros

batch\_normalization\_6/gamma/Adam\_1

batch\_normalization\_6/gamma/Adam\_1/Assign

batch\_normalization\_6/gamma/Adam\_1/read

batch\_normalization\_6/beta/Adam/Initializer/zeros

batch\_normalization\_6/beta/Adam

batch\_normalization\_6/beta/Adam/Assign

batch\_normalization\_6/beta/Adam/read

batch\_normalization\_6/beta/Adam\_1/Initializer/zeros

batch\_normalization\_6/beta/Adam\_1

batch\_normalization\_6/beta/Adam\_1/Assign

batch\_normalization\_6/beta/Adam\_1/read

fully\_connected\_1/weights/Adam/Initializer/zeros/shape\_as\_tensor

fully\_connected\_1/weights/Adam/Initializer/zeros/Const

fully\_connected\_1/weights/Adam/Initializer/zeros

fully\_connected\_1/weights/Adam

fully\_connected\_1/weights/Adam/Assign

fully\_connected\_1/weights/Adam/read

fully\_connected\_1/weights/Adam\_1/Initializer/zeros/shape\_as\_tensor

fully\_connected\_1/weights/Adam\_1/Initializer/zeros/Const

fully\_connected\_1/weights/Adam\_1/Initializer/zeros

fully\_connected\_1/weights/Adam\_1

fully\_connected\_1/weights/Adam\_1/Assign

fully\_connected\_1/weights/Adam\_1/read

fully\_connected\_1/biases/Adam/Initializer/zeros

fully\_connected\_1/biases/Adam

fully\_connected\_1/biases/Adam/Assign

fully\_connected\_1/biases/Adam/read

fully\_connected\_1/biases/Adam\_1/Initializer/zeros

fully\_connected\_1/biases/Adam\_1

fully\_connected\_1/biases/Adam\_1/Assign

fully\_connected\_1/biases/Adam\_1/read

batch\_normalization\_7/gamma/Adam/Initializer/zeros

batch\_normalization\_7/gamma/Adam

batch\_normalization\_7/gamma/Adam/Assign

batch\_normalization\_7/gamma/Adam/read

batch\_normalization\_7/gamma/Adam\_1/Initializer/zeros

batch\_normalization\_7/gamma/Adam\_1

batch\_normalization\_7/gamma/Adam\_1/Assign

batch\_normalization\_7/gamma/Adam\_1/read

batch\_normalization\_7/beta/Adam/Initializer/zeros

batch\_normalization\_7/beta/Adam

batch\_normalization\_7/beta/Adam/Assign

batch\_normalization\_7/beta/Adam/read

batch\_normalization\_7/beta/Adam\_1/Initializer/zeros

batch\_normalization\_7/beta/Adam\_1

batch\_normalization\_7/beta/Adam\_1/Assign

batch\_normalization\_7/beta/Adam\_1/read

fully\_connected\_2/weights/Adam/Initializer/zeros

fully\_connected\_2/weights/Adam

fully\_connected\_2/weights/Adam/Assign

fully\_connected\_2/weights/Adam/read

fully\_connected\_2/weights/Adam\_1/Initializer/zeros

fully\_connected\_2/weights/Adam\_1

fully\_connected\_2/weights/Adam\_1/Assign

fully\_connected\_2/weights/Adam\_1/read

fully\_connected\_2/biases/Adam/Initializer/zeros

fully\_connected\_2/biases/Adam

fully\_connected\_2/biases/Adam/Assign

fully\_connected\_2/biases/Adam/read

fully\_connected\_2/biases/Adam\_1/Initializer/zeros

fully\_connected\_2/biases/Adam\_1

fully\_connected\_2/biases/Adam\_1/Assign

fully\_connected\_2/biases/Adam\_1/read

Adam/learning\_rate

Adam/beta1

Adam/beta2

Adam/epsilon

Adam/update\_W0/ApplyAdam

Adam/update\_batch\_normalization/gamma/ApplyAdam

Adam/update\_batch\_normalization/beta/ApplyAdam

Adam/update\_W1/ApplyAdam

Adam/update\_batch\_normalization\_1/gamma/ApplyAdam

Adam/update\_batch\_normalization\_1/beta/ApplyAdam

Adam/update\_W2/ApplyAdam

Adam/update\_batch\_normalization\_2/gamma/ApplyAdam

Adam/update\_batch\_normalization\_2/beta/ApplyAdam

Adam/update\_W3/ApplyAdam

Adam/update\_batch\_normalization\_3/gamma/ApplyAdam

Adam/update\_batch\_normalization\_3/beta/ApplyAdam

Adam/update\_W4/ApplyAdam

Adam/update\_batch\_normalization\_4/gamma/ApplyAdam

Adam/update\_batch\_normalization\_4/beta/ApplyAdam

Adam/update\_W5/ApplyAdam

Adam/update\_batch\_normalization\_5/gamma/ApplyAdam

Adam/update\_batch\_normalization\_5/beta/ApplyAdam

Adam/update\_fully\_connected/weights/ApplyAdam

Adam/update\_fully\_connected/biases/ApplyAdam

Adam/update\_batch\_normalization\_6/gamma/ApplyAdam

Adam/update\_batch\_normalization\_6/beta/ApplyAdam

Adam/update\_fully\_connected\_1/weights/ApplyAdam

Adam/update\_fully\_connected\_1/biases/ApplyAdam

Adam/update\_batch\_normalization\_7/gamma/ApplyAdam

Adam/update\_batch\_normalization\_7/beta/ApplyAdam

Adam/update\_fully\_connected\_2/weights/ApplyAdam

Adam/update\_fully\_connected\_2/biases/ApplyAdam

Adam/mul

Adam/Assign

Adam/mul\_1

Adam/Assign\_1

Adam

ArgMax/dimension

ArgMax

ArgMax\_1/dimension

ArgMax\_1

Equal

Cast

Const\_1

accuracy

init

save/filename/input

save/filename

save/Const

save/SaveV2/tensor\_names

save/SaveV2/shape\_and\_slices

save/SaveV2

save/control\_dependency

save/RestoreV2/tensor\_names

save/RestoreV2/shape\_and\_slices

save/RestoreV2

save/Assign

save/Assign\_1

save/Assign\_2

save/Assign\_3

save/Assign\_4

save/Assign\_5

save/Assign\_6

save/Assign\_7

save/Assign\_8

save/Assign\_9

save/Assign\_10

save/Assign\_11

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save/Assign\_13

save/Assign\_14

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save/Assign\_93

save/Assign\_94

save/Assign\_95

save/Assign\_96

save/Assign\_97

save/Assign\_98

save/Assign\_99

save/Assign\_100

save/Assign\_101

save/restore\_all

WARNING:tensorflow:From /storage2/home2/e1-313-15521/tipr-third-assignment/src/embeddingclustertsne.py:287: 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 /home2/e1-313-15521/.local/lib/python3.7/site-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 /home2/e1-313-15521/.local/lib/python3.7/site-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 /storage2/home2/e1-313-15521/tipr-third-assignment/data/Fashion-MNIST/train-images-idx3-ubyte.gz

WARNING:tensorflow:From /home2/e1-313-15521/.local/lib/python3.7/site-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 /storage2/home2/e1-313-15521/tipr-third-assignment/data/Fashion-MNIST/train-labels-idx1-ubyte.gz

WARNING:tensorflow:From /home2/e1-313-15521/.local/lib/python3.7/site-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.

Extracting /storage2/home2/e1-313-15521/tipr-third-assignment/data/Fashion-MNIST/t10k-images-idx3-ubyte.gz

Extracting /storage2/home2/e1-313-15521/tipr-third-assignment/data/Fashion-MNIST/t10k-labels-idx1-ubyte.gz

WARNING:tensorflow:From /home2/e1-313-15521/.local/lib/python3.7/site-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.

Test accuracy :: 0.9771090909090909

Test Macro F1 Score:: 0.9771407575946511

Test Micro F1 Score:: 0.9771090909090909