e1-313-15521@clserv:~$ python3 "/storage2/home2/e1-313-15521/tipr-third-assignment/src/mainfinal.py" --train-data /storage2/home2/e1-313-15521/tipr-third-assignment/data --test-data /storage2/home2/e1-313-15521/tipr-third-assignment/data --dataset Fashion-MNIST --filter-config [3 3 3 3 3 3] --activation relu

numneurons [3, 3, 3, 3, 3, 3]

test\_data

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/mainfinal.py:90: 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/mainfinal.py:189: 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 16:03:44.569612: 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 16:03:44.578850: I tensorflow/core/platform/profile\_utils/cpu\_utils.cc:94] CPU Frequency: 2597110000 Hz

2019-03-19 16:03:44.580594: I tensorflow/compiler/xla/service/service.cc:150] XLA service 0x421cdd0 executing computations on platform Host. Devices:

2019-03-19 16:03:44.580624: I tensorflow/compiler/xla/service/service.cc:158] StreamExecutor device (0): <undefined>, <undefined>

epoch: 0

WARNING:tensorflow:From /storage2/home2/e1-313-15521/tipr-third-assignment/src/mainfinal.py:49: 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.

epoch: 1

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

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

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

epoch: 2

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

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

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

epoch: 3

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

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

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

epoch: 4

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

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

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

epoch: 5

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

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

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

epoch: 6

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

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

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

epoch: 7

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

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

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

epoch: 8

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

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

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

epoch: 9

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

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

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

epoch: 10

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

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

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

epoch: 11

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

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

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

epoch: 12

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

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

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

epoch: 13

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

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

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

epoch: 14

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

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

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

epoch: 15

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

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

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

epoch: 16

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

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

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

epoch: 17

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

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

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

epoch: 18

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

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

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

epoch: 19

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

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

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

Test accuracy :: 0.9681818181818181

Test Macro F1 Score:: 0.9681853258445539

Test Micro F1 Score:: 0.968181818181818