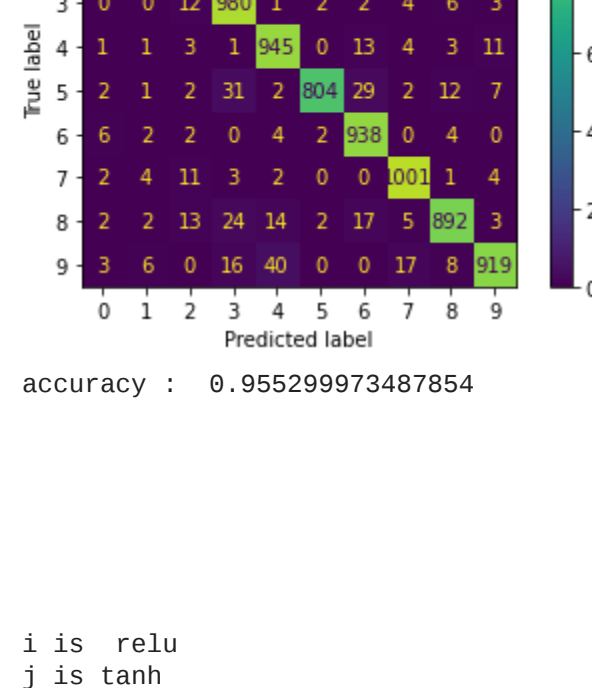


3 layer networks
1 is relu

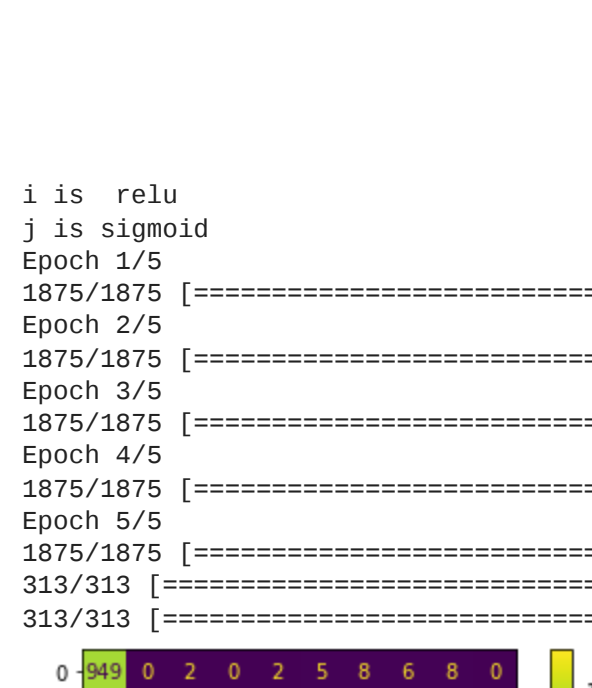
Epoch 1/5
1875/1875 [=====] - 11s 5ms/step - loss: 1.5993 - acc: 0.8348 - val_loss: 0.4584 - val_acc: 0.8890
Epoch 2/5
1875/1875 [=====] - 9s 5ms/step - loss: 0.3277 - acc: 0.9148 - val_loss: 0.2739 - val_acc: 0.9255
1875/1875 [=====] - 9s 5ms/step - loss: 0.2166 - acc: 0.9391 - val_loss: 0.2185 - val_acc: 0.9412
1875/1875 [=====] - 9s 5ms/step - loss: 0.1723 - acc: 0.9502 - val_loss: 0.1791 - val_acc: 0.9591
Epoch 3/5
1875/1875 [=====] - 9s 5ms/step - loss: 0.1497 - acc: 0.9572 - val_loss: 0.1865 - val_acc: 0.9553
1875/1875 [=====] - 1s 3ms/step
313/313 [=====] - 1s 3ms/step - loss: 0.1865 - acc: 0.9553



accuracy : 0.955299973487854

1 is tanh

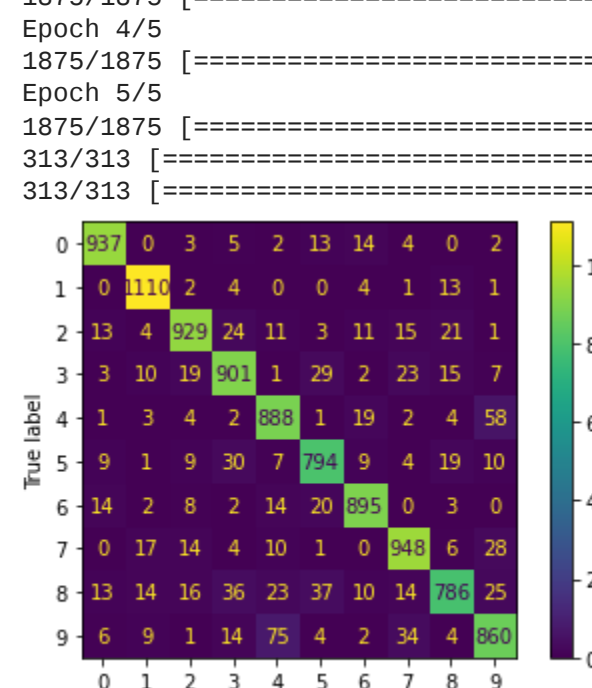
Epoch 1/5
1875/1875 [=====] - 11s 5ms/step - loss: 0.8689 - acc: 0.7394 - val_loss: 0.5917 - val_acc: 0.8242
Epoch 2/5
1875/1875 [=====] - 9s 5ms/step - loss: 0.5648 - acc: 0.8225 - val_loss: 0.4417 - val_acc: 0.8876
1875/1875 [=====] - 9s 5ms/step - loss: 0.4625 - acc: 0.8457 - val_loss: 0.5525 - val_acc: 0.8291
Epoch 3/5
1875/1875 [=====] - 9s 5ms/step - loss: 0.4740 - acc: 0.8566 - val_loss: 0.4570 - val_acc: 0.8591
1875/1875 [=====] - 9s 5ms/step - loss: 0.2708 - acc: 0.8952 - val_loss: 0.4595 - val_acc: 0.8648
1875/1875 [=====] - 1s 3ms/step
313/313 [=====] - 1s 3ms/step - loss: 0.4595 - acc: 0.8648



accuracy : 0.864799976348877

1 is sigmoid

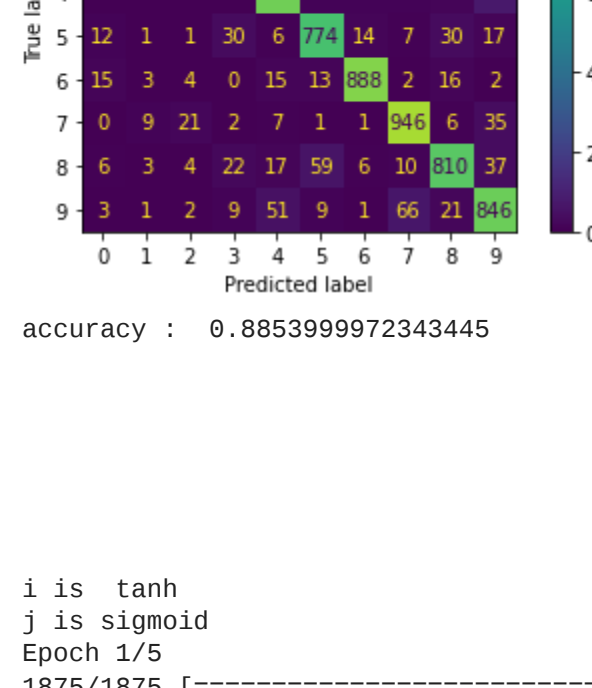
Epoch 1/5
1875/1875 [=====] - 11s 5ms/step - loss: 0.6172 - acc: 0.8304 - val_loss: 0.3268 - val_acc: 0.9083
Epoch 2/5
1875/1875 [=====] - 9s 5ms/step - loss: 0.3242 - acc: 0.9045 - val_loss: 0.3211 - val_acc: 0.9028
Epoch 3/5
1875/1875 [=====] - 9s 5ms/step - loss: 0.2946 - acc: 0.9128 - val_loss: 0.2825 - val_acc: 0.9152
1875/1875 [=====] - 9s 5ms/step - loss: 0.2708 - acc: 0.9164 - val_loss: 0.2735 - val_acc: 0.9171
1875/1875 [=====] - 9s 5ms/step - loss: 0.2698 - acc: 0.9211 - val_loss: 0.2578 - val_acc: 0.9270
1875/1875 [=====] - 1s 3ms/step
313/313 [=====] - 1s 3ms/step - loss: 0.2578 - acc: 0.9270



accuracy : 0.926999986171224

1 is tanh

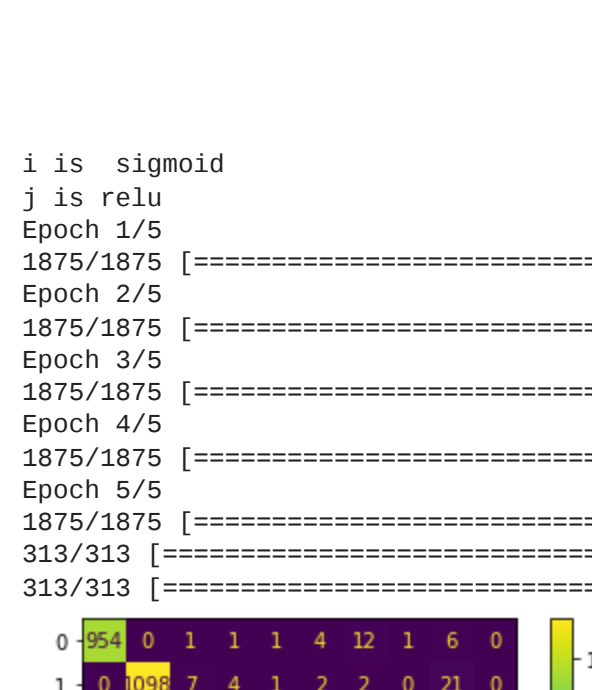
Epoch 1/5
1875/1875 [=====] - 12s 5ms/step - loss: 0.6215 - acc: 0.8957 - val_loss: 0.5114 - val_acc: 0.8408
Epoch 2/5
1875/1875 [=====] - 10s 5ms/step - loss: 0.4475 - acc: 0.8877 - val_loss: 0.3420 - val_acc: 0.8539
Epoch 3/5
1875/1875 [=====] - 10s 5ms/step - loss: 0.4625 - acc: 0.8718 - val_loss: 0.3549 - val_acc: 0.8866
Epoch 4/5
1875/1875 [=====] - 9s 5ms/step - loss: 0.3614 - acc: 0.8834 - val_loss: 0.3360 - val_acc: 0.8932
1875/1875 [=====] - 9s 5ms/step - loss: 0.3214 - acc: 0.9289 - val_loss: 0.2988 - val_acc: 0.9048
1875/1875 [=====] - 1s 3ms/step
313/313 [=====] - 1s 3ms/step - loss: 0.2988 - acc: 0.9048



accuracy : 0.9047999978065491

1 is tanh

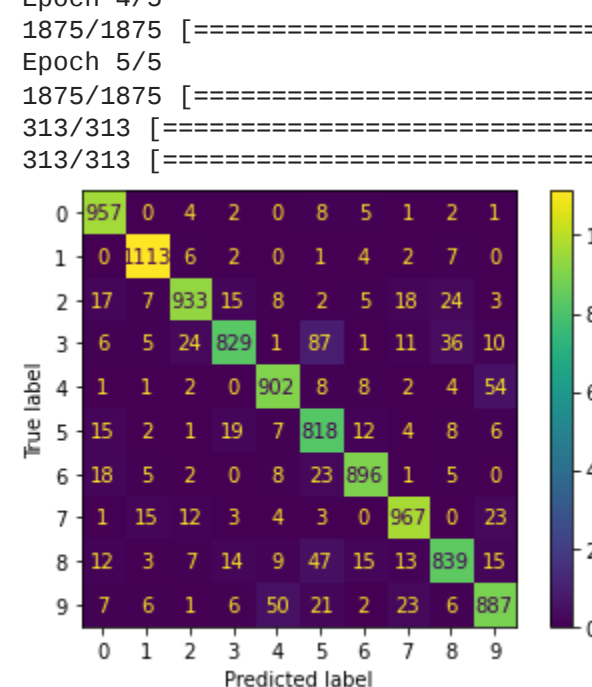
Epoch 1/5
1875/1875 [=====] - 11s 5ms/step - loss: 0.6283 - acc: 0.8951 - val_loss: 0.5042 - val_acc: 0.8406
Epoch 2/5
1875/1875 [=====] - 9s 5ms/step - loss: 0.4833 - acc: 0.8471 - val_loss: 0.4857 - val_acc: 0.8458
Epoch 3/5
1875/1875 [=====] - 9s 5ms/step - loss: 0.4371 - acc: 0.8591 - val_loss: 0.3941 - val_acc: 0.8713
1875/1875 [=====] - 9s 5ms/step - loss: 0.3906 - acc: 0.8785 - val_loss: 0.3561 - val_acc: 0.8874
1875/1875 [=====] - 9s 5ms/step - loss: 0.3739 - acc: 0.8897 - val_loss: 0.3587 - val_acc: 0.8854
1875/1875 [=====] - 1s 3ms/step
313/313 [=====] - 1s 3ms/step - loss: 0.3587 - acc: 0.8854



accuracy : 0.8853999972343445

1 is sigmoid

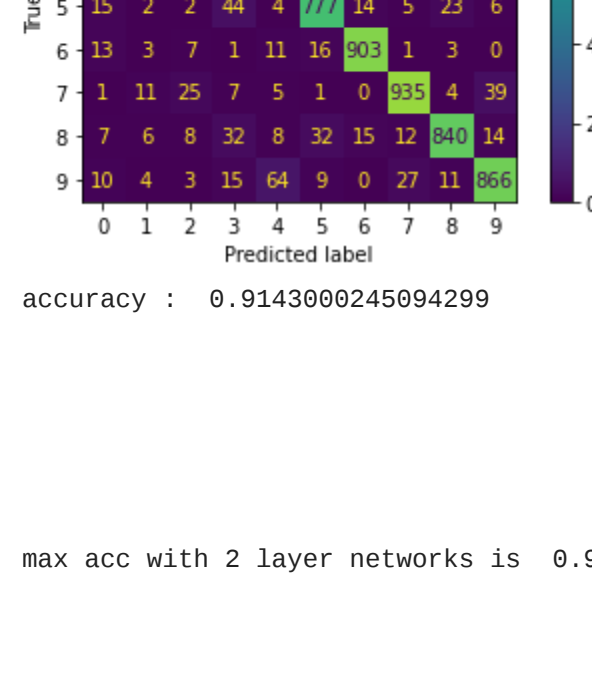
Epoch 1/5
1875/1875 [=====] - 11s 5ms/step - loss: 0.6517 - acc: 0.8246 - val_loss: 0.4335 - val_acc: 0.8740
Epoch 2/5
1875/1875 [=====] - 9s 5ms/step - loss: 0.4293 - acc: 0.8690 - val_loss: 0.3758 - val_acc: 0.8820
Epoch 3/5
1875/1875 [=====] - 9s 5ms/step - loss: 0.3906 - acc: 0.8781 - val_loss: 0.3552 - val_acc: 0.8896
Epoch 4/5
1875/1875 [=====] - 9s 5ms/step - loss: 0.3509 - acc: 0.8919 - val_loss: 0.3316 - val_acc: 0.9011
1875/1875 [=====] - 9s 5ms/step - loss: 0.3281 - acc: 0.8976 - val_loss: 0.3099 - val_acc: 0.9043
1875/1875 [=====] - 1s 3ms/step
313/313 [=====] - 1s 4ms/step - loss: 0.3099 - acc: 0.9043



accuracy : 0.9042999744415283

1 is sigmoid

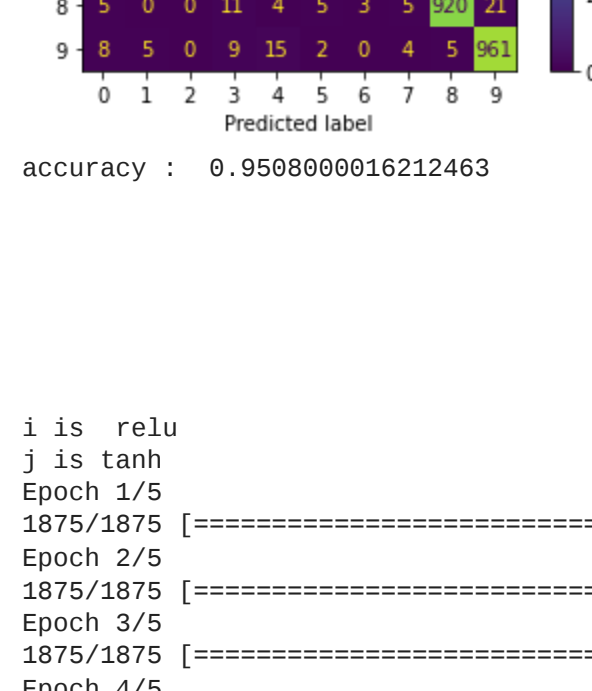
Epoch 1/5
1875/1875 [=====] - 11s 5ms/step - loss: 0.5615 - acc: 0.8313 - val_loss: 0.4615 - val_acc: 0.8550
Epoch 2/5
1875/1875 [=====] - 9s 5ms/step - loss: 0.4094 - acc: 0.8763 - val_loss: 0.3420 - val_acc: 0.8977
Epoch 3/5
1875/1875 [=====] - 10s 5ms/step - loss: 0.3520 - acc: 0.8920 - val_loss: 0.3340 - val_acc: 0.8998
1875/1875 [=====] - 9s 5ms/step - loss: 0.3262 - acc: 0.8954 - val_loss: 0.3065 - val_acc: 0.9042
1875/1875 [=====] - 10s 5ms/step - loss: 0.2931 - acc: 0.8983 - val_loss: 0.2615 - val_acc: 0.9200
1875/1875 [=====] - 1s 3ms/step
313/313 [=====] - 1s 4ms/step - loss: 0.2615 - acc: 0.9200



accuracy : 0.9200000166892805

1 is sigmoid

Epoch 1/5
1875/1875 [=====] - 11s 5ms/step - loss: 0.5330 - acc: 0.8419 - val_loss: 0.3856 - val_acc: 0.8812
Epoch 2/5
1875/1875 [=====] - 9s 5ms/step - loss: 0.3743 - acc: 0.8842 - val_loss: 0.3116 - val_acc: 0.9045
Epoch 3/5
1875/1875 [=====] - 9s 5ms/step - loss: 0.3214 - acc: 0.8998 - val_loss: 0.2944 - val_acc: 0.9103
Epoch 4/5
1875/1875 [=====] - 9s 5ms/step - loss: 0.2964 - acc: 0.9086 - val_loss: 0.2830 - val_acc: 0.9113
Epoch 5/5
1875/1875 [=====] - 9s 5ms/step - loss: 0.2830 - acc: 0.9128 - val_loss: 0.2675 - val_acc: 0.9141
1875/1875 [=====] - 1s 3ms/step
313/313 [=====] - 1s 3ms/step - loss: 0.2675 - acc: 0.9141



accuracy : 0.9140999913215637

1 is sigmoid

Epoch 1/5
1875/1875 [=====] - 11s 5ms/step - loss: 0.6416 - acc: 0.8379 - val_loss: 0.3681 - val_acc: 0.8949
Epoch 2/5
1875/1875 [=====] - 9s 5ms/step - loss: 0.3658 - acc: 0.8906 - val_loss: 0.3369 - val_acc: 0.8962
Epoch 3/5
1875/1875 [=====] - 10s 5ms/step - loss: 0.3310 - acc: 0.9009 - val_loss: 0.3085 - val_acc: 0.9065
Epoch 4/5
1875/1875 [=====] - 9s 5ms/step - loss: 0.3098 - acc: 0.9053 - val_loss: 0.2943 - val_acc: 0.9090
1875/1875 [=====] - 10s 5ms/step - loss: 0.3014 - acc: 0.9076 - val_loss: 0.2771 - val_acc: 0.9143
1875/1875 [=====] - 1s 3ms/step
313/313 [=====] - 1s 4ms/step - loss: 0.2771 - acc: 0.9143

