

# Modification 4 with 5x5 Kernel

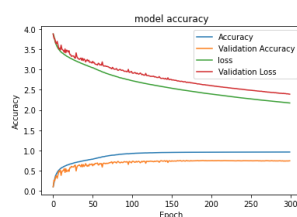
LR 0.001

Optimizer=SGD, Epochs=300, Learning\_Rate=0.001, Batch\_Size=128, Momentum=0.9

## Run1

Epoch 300/300

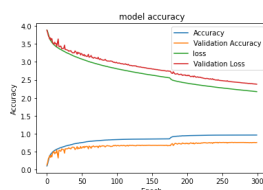
50000/50000 [=====] - 20s 402us/sample - loss: 2.1742 - accuracy:  
0.9614 - val\_loss: 2.3913 - val\_accuracy: 0.7444



## Run2

Epoch 300/300

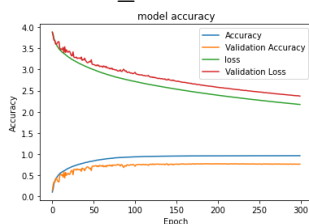
50000/50000 [=====] - 21s 429us/sample - loss: 2.1732 - accuracy:  
0.9648 - val\_loss: 2.3795 - val\_accuracy: 0.7592



## Run3

Epoch 300/300

391/391 [=====] - 19s 48ms/step - loss:  
2.1809 - accuracy: 0.9628 - val\_loss: 2.3795 - val\_accuracy: 0.7629



LR 0.005

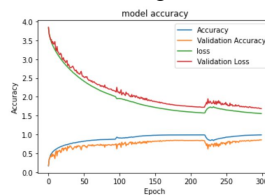
Optimizer=SGD, Epochs=300, Learning\_Rate=0.005, Batch\_Size=128, Momentum=0.9

Run1

Epoch 300/300

50000/50000 [=====] - 20s 392us/sample - loss:  
1.5551 - accuracy: 0.9877 - val\_loss: 1.6861 - val\_accuracy: 0.8560

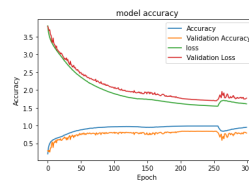
And highest



Run2

Epoch 300/300

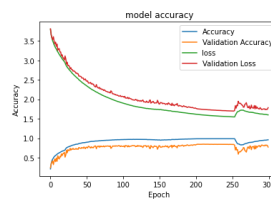
50000/50000 [=====] - 20s 398us/sample - loss:  
1.6100 - accuracy: 0.9503 - val\_loss: 1.7707 - val\_accuracy: 0.7882



Run3

Epoch 300/300

50000/50000 [=====] - 20s 399us/sample - loss:  
1.5998 - accuracy: 0.9593 - val\_loss: 1.7839 - val\_accuracy: 0.7731



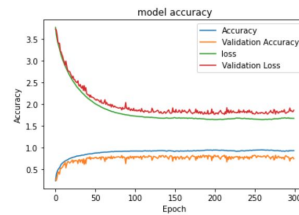
## LR 0.01

Optimizer=SGD, Epochs=300, Learning\_Rate=0.01, Batch\_Size=128, Momentum=0.9

### Run1

Epoch 300/300

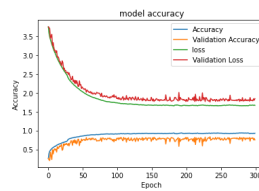
50000/50000 [=====] - 20s 403us/sample - loss:  
1.6714 - accuracy: 0.9269 - val\_loss: 1.8593 - val\_accuracy: 0.7380



### Run2

Epoch 300/300

50000/50000 [=====] - 20s 402us/sample - loss:  
1.6686 - accuracy: 0.9282 - val\_loss: 1.8438 - val\_accuracy: 0.7517



### Run3

Epoch 300/300

50000/50000 [=====] - 20s 390us/sample - loss:  
1.6603 - accuracy: 0.9312 - val\_loss: 1.7968 - val\_accuracy: 0.7933

