

Assignment 2

Q2 Report

Main CNN architecture:

Layer1: Conv2D
Layer2: MaxPool
Layer3: Conv2D
Layer4: MaxPool
Layer5: Flatten
Layer6: Dense
Layer7: Flatten
Layer8: Dense(logits layer)

Experiments & Observations for different layers and activation functions combined with main CNN architecture achieved on testing on data_batch_5 after training on other batches on i5 7th gen CPU.

1). Batch Normalization:

Total number of epochs=10
Epsilon=1e-6
Accuracy=0.63

2.) Dropout layer after flatten layer:

Total number of epochs=10
Dropout value=0.25
Accuracy=0.45

3) Activation layer using 'Relu':

Note: No dropout or batch normalization used.

Total number of epochs=10
Accuracy=0.59

4) Activation layer using 'tanh':

Note: No dropout or batch normalization used.

Total number of epochs=10

Accuracy=0.61

5) Activation layer using 'sigmoid':

Note: No dropout or batch normalization used.

Total no. Of epochs=10

Accuracy=0.499