

CS547
HW3
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The accuracy on the test set is **0.8157** after 12 epochs of training with batch_size of 64. The dropout rate is set as 0.2. The optimizer used is Adam with learning rate of 0.001 and decay of 0.001. Data augmentation uses random horizontal flip with probability of 0.5. Other transformation technique includes ToTensor() and Normalize().

The model has five convolutional layers with parameters (64 channels, $k = 4, s = 1, P = 2$) and three convolutional layers with parameters (64 channels, $k = 3, s = 1, P = 0$). Batch normalization layers, max pooling ($s = 2, k = 2$), dropout ($p = 0.2$), ReLu, flatten layer are added between the convolutional layers. Lastly, two fully connected layers with hidden units of 500 are used.

The total running time is 285 seconds on Google Colab.