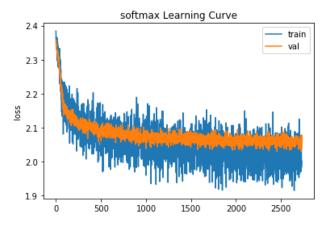
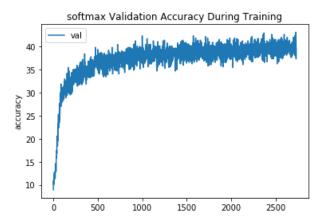
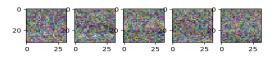
Softmax (Multiclass) Classification

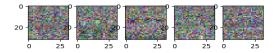
✓ Softmax Learning Curve and Validation Accuracy plots -

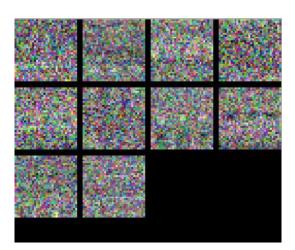




✓ Softmax Best Weight – parameter - Plot



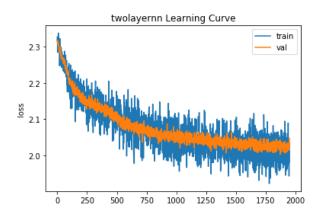


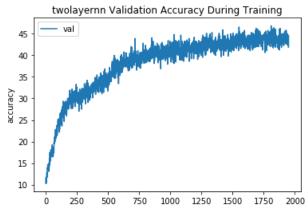


- √ Hyperparameters tuned -> epochs, weight-decay, momentum, batch-size, learning rate
- ✓ Overall test Accuracy obtained on the dataset is -> 40%
- ✓ Refer the Best Parameters and Logs from softmax.log

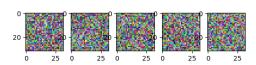
Two-layer (Multiclass) Classification

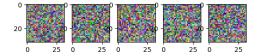
√ Two-Layer Learning Curve and Validation Accuracy plots -

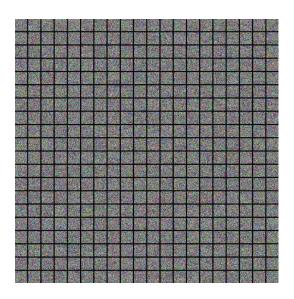




√ Two-Layer Best Weight – parameter – Plot



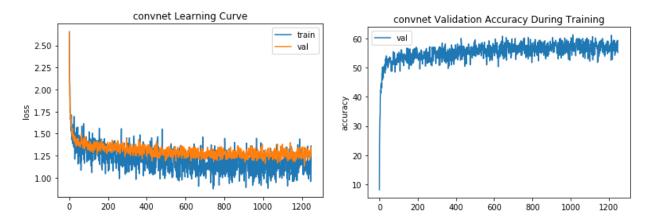




- ✓ Hyperparameters tuned -> hidden, dim., epochs, weight-decay, momentum, batch-size, learning rate
- ✓ Overall test Accuracy obtained on the dataset is -> 43%
- ✓ Refer the Best Parameters and Logs from twolayer.log

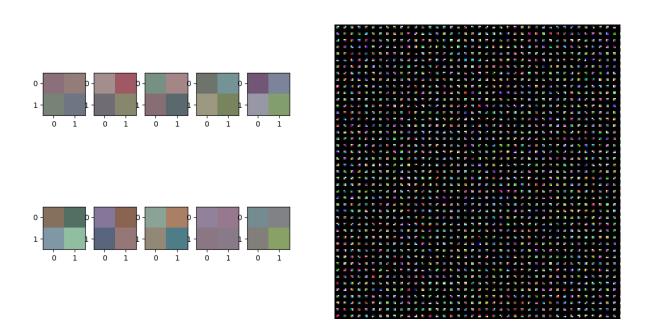
Convolutional Neural Network

✓ CNN Learning Curve and Validation Accuracy plots -



✓ CNN Best Weight – parameter – Plot

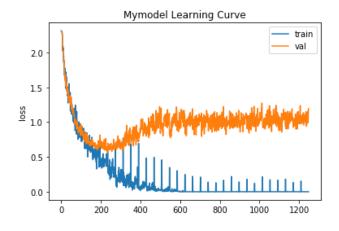
Kernel Size=2 (can be seen from the figure below)

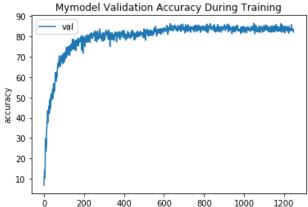


- ✓ Hyperparameters tuned -> Kernel size, hidden, dim., epochs, weight-decay, momentum, batch-size, learning rate
- ✓ Overall test Accuracy obtained on the dataset is -> 56%
- ✓ Refer the Best Parameters and Logs from convnet.log

MyModel Neural Network

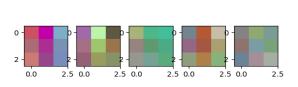
✓ CNN Learning Curve and Validation Accuracy plots -

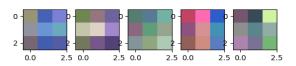


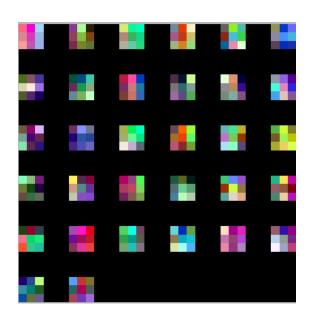


✓ CNN Best Weight – parameter – Plot

Kernel Size=3(can be seen from the figure below)







- ✓ Hyperparameters tuned -> Kernel size, hidden, dim., epochs, weight-decay, momentum, batch-size, learning rate
- ✓ Overall test Accuracy obtained on the dataset is -> 81%
- Refer the Best Parameters and Logs from mymodel.log