Machine Learning 2 Assignment, Fractal 1, Semester 2

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Code: GitHub Link

Task 1

Target

Implement the designed CNN architecture for CIFAR-10 dataset

Result

No. of Parameters: 157,370
Best Train Accuracy: 88%
Best Test Accuracy: 70%

Analysis

- The model was not able to generalize well (although it was not all that bad)
- The test accuracy was not changing much

Task 2

Target

Add two regularization techniques and try to improve the generalization of the model. I also tried to make use of less parameters within less EPOCH(15)

Results

No. of Parameters: 157,594
Best Train Accuracy: 85%
Best Test Accuracy: 77%

Analysis

- As expected with regularization(dropout and BN) training error increased slightly whereas test error decreased
- The model was able to generalize little better
- BN added some more no. of parameters
- The test accuracy was not changing much

