Assignment 3

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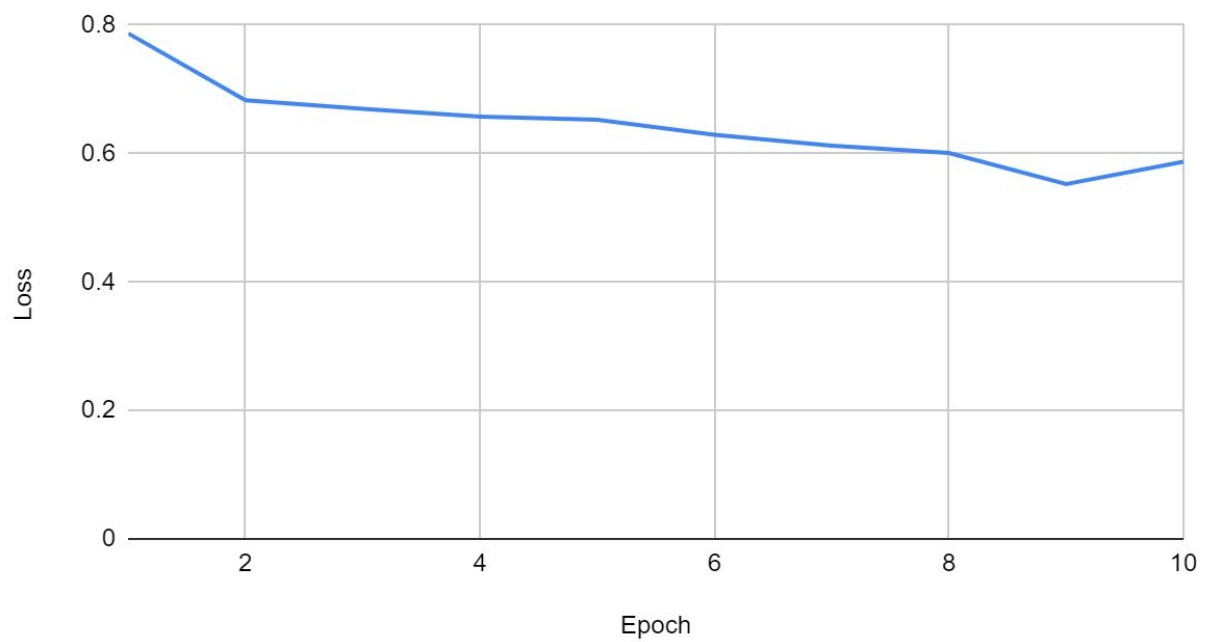
https://github.com/goddardf/CS4347/tree/master/assign3_convolution_nn

Architecture Used
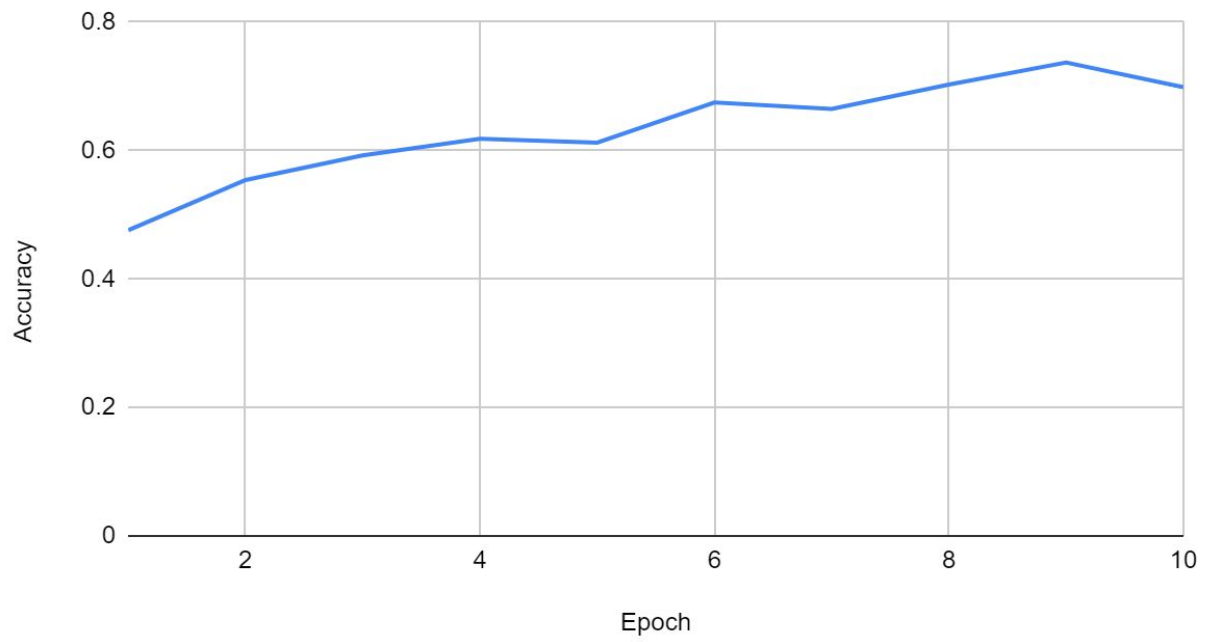
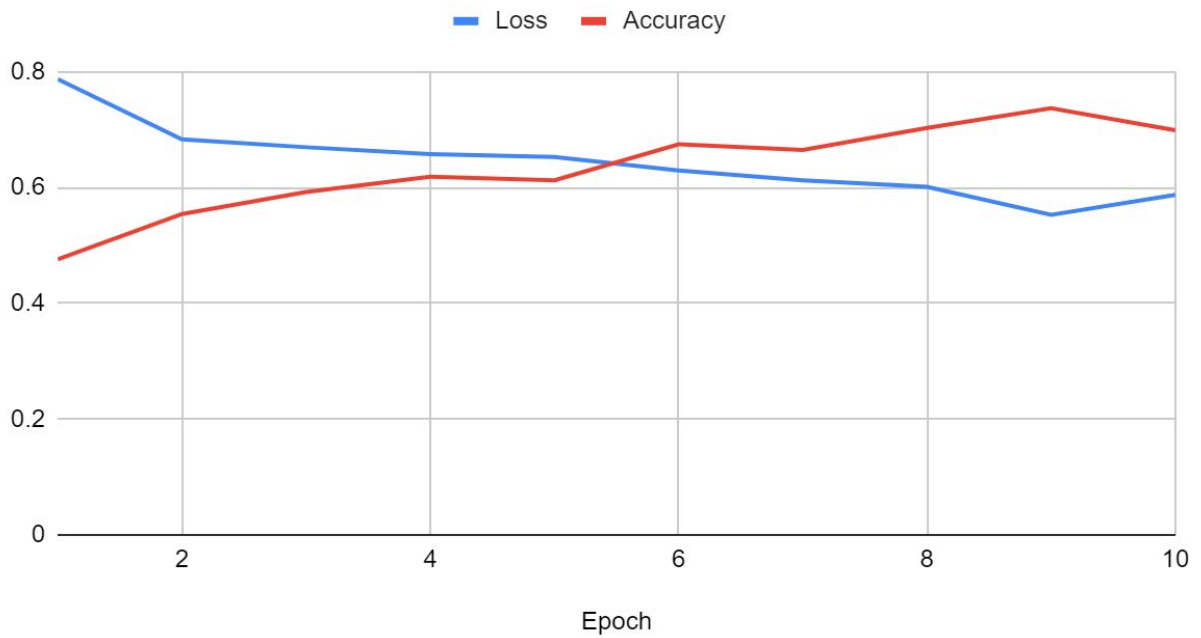The Architecture used in this project was Anaconda and Pycharm.

Experiment Results Graphs
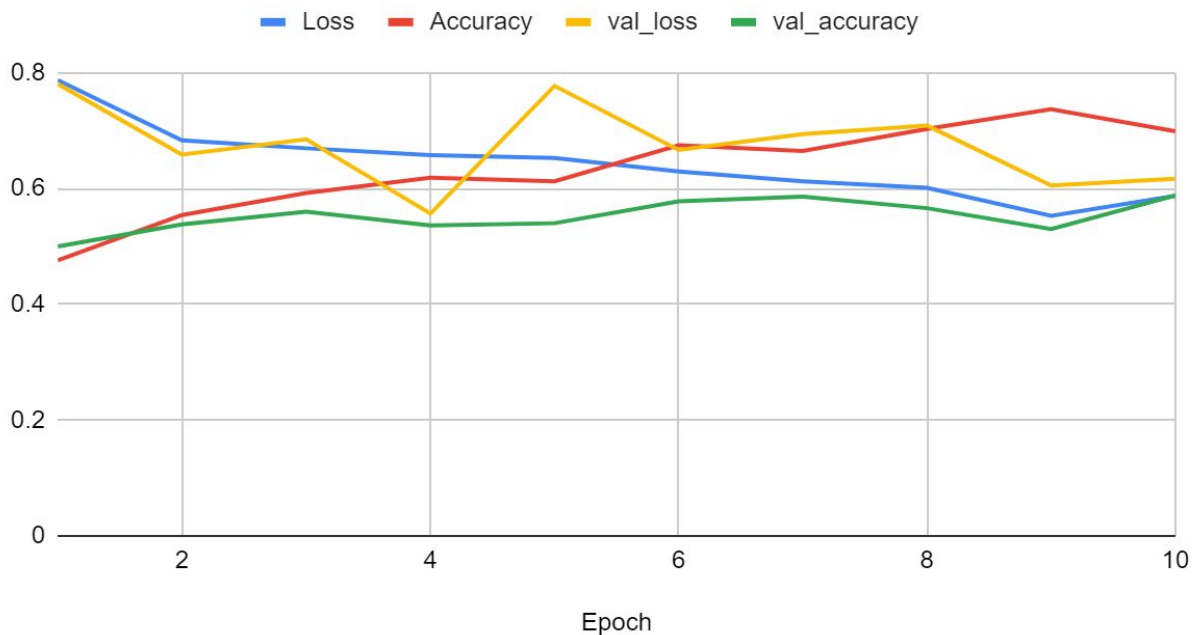
Loss vs. Epoch

Accuracy vs. Epoch

Loss and Accuracy

Loss, Accuracy, val_loss and val_accuracy

Optimizer
- RMSProp
  - Yielded an average accuracy of 47%.
- Nadam
  - Yielded an average accuracy of 56%

Epoch
- The Epoch affects the average accuracy of the data. Significantly increasing the epochs significantly in the average accuracy but will decrease the performance. Increasing will also lead to overfitting the training data.

Train Size
- Increasing the training size increases the accuracy.

Test Size
- Test sizes that are smaller both over and underestimate the accuracy of the model. When the test size is larger it gets closer to the actual result.

Final Result
- In testing these optimizers I have come to the conclusion that Nadam is better for this data set because of its better average accuracy.