Link: <https://github.com/kth43/CS4347>

Architecture: Both models use a naïve bayes classifier that:

Kerasmain.py: runs 50 times per epoch for 10 epochs

Kerasmain101.py: runs 100 times for each class used per epoch, so when running 10 classes and 10 epochs, the program runs 1000 times 10 times.

Results:

Kerasmain.py:

Accuracy: .5560

Kerasmain101.py:

Accuracy: .5114

Report:

Loss Function:

Categorical Cross entropy for both

Kerasmain.py: .6144

Kerasmain101.py: 1.4762

Learning Rate:

Learning Rate of .01 in config

Optimizer:

Kerasmain.py: Using keras RMSprop with learning rate of .0001 and 1e-6 decay

Kerasmain101.py: Using keras RMSprop with learning rate of .0001 and 1e-6 decay

Epoch:

100 Epochs in config but set to 10 for both in respective mains

Train size:

Kerasmain.py: 128 \* 128 Batches of 10

Kerasmain101.py: 128 \* 128 Batches of 10

Test Size:

Kerasmain.py: 128 \* 128 Batches of 10

Kerasmain101.py: 128 \* 128 Batches of 32

Data Dimension HxW:

Kerasmain.py: 498\*500

Kerasmain101.py: 10000 \* 10000