

```
/usr/local/bin/python3 "/Users/anand.narasimhan/Desktop/Deep Learning Project/main.py"  
(base) anand.narasimhan@nbp-204-198 Deep Learning Project % /usr/local/bin/python3  
"/Users/anand.narasimh  
an/Desktop/Deep Learning Project/main.py"
```

Test set: Average loss: 2.3013, Accuracy: 1135/10000 (11%)

Test set: Average loss: 2.3008, Accuracy: 1135/10000 (11%)

Test set: Average loss: 2.3006, Accuracy: 1135/10000 (11%)

Test set: Average loss: 2.3005, Accuracy: 1135/10000 (11%)

Test set: Average loss: 2.3003, Accuracy: 1135/10000 (11%)

Test set: Average loss: 2.3001, Accuracy: 1135/10000 (11%)

Test set: Average loss: 2.2998, Accuracy: 1135/10000 (11%)

Test set: Average loss: 2.2994, Accuracy: 1135/10000 (11%)

Test set: Average loss: 2.2987, Accuracy: 1135/10000 (11%)

Test set: Average loss: 2.2975, Accuracy: 1135/10000 (11%)

the sparsity of model is 0.900

Epoch Running Time: -22.405586194992065

```
(base) anand.narasimhan@nbp-204-198 Deep Learning Project % /usr/local/bin/python3  
"/Users/anand.narasimh  
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```

**Test set: Average loss: 2.2957, Accuracy: 1431/10000 (14%)**

Test set: Average loss: 2.2508, Accuracy: 3502/10000 (35%)

Test set: Average loss: 0.4734, Accuracy: 8651/10000 (87%)

Test set: Average loss: 0.3183, Accuracy: 8995/10000 (90%)

**Test set: Average loss: 0.2354, Accuracy: 9301/10000 (93%)**

Test set: Average loss: 0.1699, Accuracy: 9497/10000 (95%)

Test set: Average loss: 0.1468, Accuracy: 9569/10000 (96%)

Test set: Average loss: 0.1223, Accuracy: 9638/10000 (96%)

Test set: Average loss: 0.1141, Accuracy: 9668/10000 (97%)

**Test set: Average loss: 0.1115, Accuracy: 9671/10000 (97%)**

Test set: Average loss: 0.0974, Accuracy: 9687/10000 (97%)

Test set: Average loss: 0.0884, Accuracy: 9730/10000 (97%)

Test set: Average loss: 0.0846, Accuracy: 9739/10000 (97%)

Test set: Average loss: 0.0779, Accuracy: 9753/10000 (98%)

**Test set: Average loss: 0.0732, Accuracy: 9765/10000 (98%)**

Test set: Average loss: 0.0842, Accuracy: 9719/10000 (97%)

Test set: Average loss: 0.0704, Accuracy: 9777/10000 (98%)

Test set: Average loss: 0.0702, Accuracy: 9770/10000 (98%)

Test set: Average loss: 0.0694, Accuracy: 9779/10000 (98%)

**Test set: Average loss: 0.0616, Accuracy: 9817/10000 (98%)**

the sparsity of model is 0.600

Epoch Running Time: -29.783648681640624

(base) anand.narasimhan@nbp-204-198 Deep Learning Project % /usr/local/bin/python3

"/Users/anand.narasimh

an/Desktop/Deep Learning Project/main.py"

**Test set: Average loss: 2.2987, Accuracy: 1135/10000 (11%)**

Test set: Average loss: 2.2925, Accuracy: 1136/10000 (11%)

Test set: Average loss: 2.2555, Accuracy: 3668/10000 (37%)

Test set: Average loss: 0.6281, Accuracy: 7923/10000 (79%)

**Test set: Average loss: 0.3787, Accuracy: 8805/10000 (88%)**

Test set: Average loss: 0.2830, Accuracy: 9095/10000 (91%)

Test set: Average loss: 0.2413, Accuracy: 9252/10000 (93%)

Test set: Average loss: 0.1859, Accuracy: 9445/10000 (94%)

Test set: Average loss: 0.1558, Accuracy: 9538/10000 (95%)

**Test set: Average loss: 0.1529, Accuracy: 9547/10000 (95%)**

Test set: Average loss: 0.1359, Accuracy: 9570/10000 (96%)

Test set: Average loss: 0.1212, Accuracy: 9610/10000 (96%)

Test set: Average loss: 0.1166, Accuracy: 9657/10000 (97%)

Test set: Average loss: 0.1146, Accuracy: 9625/10000 (96%)

**Test set: Average loss: 0.0932, Accuracy: 9708/10000 (97%)**

Test set: Average loss: 0.1189, Accuracy: 9595/10000 (96%)

Test set: Average loss: 0.0904, Accuracy: 9711/10000 (97%)

Test set: Average loss: 0.0775, Accuracy: 9763/10000 (98%)

Test set: Average loss: 0.0875, Accuracy: 9739/10000 (97%)

**Test set: Average loss: 0.0783, Accuracy: 9758/10000 (98%)**

the sparsity of model is 0.700

Epoch Running Time: -28.210565304756166

(base) anand.narasimhan@nbp-204-198 Deep Learning Project % /usr/local/bin/python3

"/Users/anand.narasimh

an/Desktop/Deep Learning Project/main.py"

**Test set: Average loss: 2.3008, Accuracy: 1135/10000 (11%)**

Test set: Average loss: 2.2998, Accuracy: 1135/10000 (11%)

Test set: Average loss: 2.2987, Accuracy: 1135/10000 (11%)

Test set: Average loss: 2.2969, Accuracy: 1135/10000 (11%)

**Test set: Average loss: 2.2919, Accuracy: 1135/10000 (11%)**

Test set: Average loss: 2.2682, Accuracy: 3284/10000 (33%)

Test set: Average loss: 1.4233, Accuracy: 6385/10000 (64%)

Test set: Average loss: 0.4237, Accuracy: 8805/10000 (88%)

Test set: Average loss: 0.3141, Accuracy: 9091/10000 (91%)

**Test set: Average loss: 0.2743, Accuracy: 9226/10000 (92%)**

Test set: Average loss: 0.2362, Accuracy: 9293/10000 (93%)

Test set: Average loss: 0.2076, Accuracy: 9373/10000 (94%)

Test set: Average loss: 0.1924, Accuracy: 9434/10000 (94%)

Test set: Average loss: 0.1670, Accuracy: 9484/10000 (95%)

**Test set: Average loss: 0.1640, Accuracy: 9497/10000 (95%)**

Test set: Average loss: 0.1521, Accuracy: 9513/10000 (95%)

Test set: Average loss: 0.1359, Accuracy: 9599/10000 (96%)

Test set: Average loss: 0.1290, Accuracy: 9603/10000 (96%)

Test set: Average loss: 0.1406, Accuracy: 9575/10000 (96%)

**Test set: Average loss: 0.1275, Accuracy: 9623/10000 (96%)**

the sparsity of model is 0.800

Epoch Running Time: -28.08948130607605

(base) anand.narasimhan@nbp-204-198 Deep Learning Project % /usr/local/bin/python3

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**Test set: Average loss: 2.3013, Accuracy: 1135/10000 (11%)**

Test set: Average loss: 2.3008, Accuracy: 1135/10000 (11%)

Test set: Average loss: 2.3006, Accuracy: 1135/10000 (11%)

Test set: Average loss: 2.3005, Accuracy: 1135/10000 (11%)

**Test set: Average loss: 2.3003, Accuracy: 1135/10000 (11%)**

Test set: Average loss: 2.3001, Accuracy: 1135/10000 (11%)

Test set: Average loss: 2.2998, Accuracy: 1135/10000 (11%)

Test set: Average loss: 2.2994, Accuracy: 1135/10000 (11%)

Test set: Average loss: 2.2987, Accuracy: 1135/10000 (11%)

**Test set: Average loss: 2.2975, Accuracy: 1135/10000 (11%)**

Test set: Average loss: 2.2951, Accuracy: 1135/10000 (11%)

Test set: Average loss: 2.2887, Accuracy: 1135/10000 (11%)

Test set: Average loss: 2.2620, Accuracy: 3171/10000 (32%)

Test set: Average loss: 1.9701, Accuracy: 3744/10000 (37%)

**Test set: Average loss: 1.0225, Accuracy: 6584/10000 (66%)**

Test set: Average loss: 0.6280, Accuracy: 7983/10000 (80%)

Test set: Average loss: 0.5015, Accuracy: 8486/10000 (85%)

Test set: Average loss: 0.4265, Accuracy: 8711/10000 (87%)

Test set: Average loss: 0.3818, Accuracy: 8891/10000 (89%)

**Test set: Average loss: 0.3526, Accuracy: 8950/10000 (90%)**

the sparsity of model is 0.900

Epoch Running Time: -27.44755630493164

(base) anand.narasimhan@nbp-204-198 Deep Learning Project %