|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Network | Train Accuracy | Validation Accuracy | Test Accuracy | Train Time |
| CNN |  |  |  |  |
| 1 0.0005 10 128 12345 | 98.99% | 98.95% | 99.04% | 5m 7s |
| 1 0.001 10 128 12345 | 99.28% | 99.07% | 99.14% | 5m 4s |
| 3 0.001 10 128 12345 | 99.49% | 99.12% | 99.02% | 5m 3s |
| 1 0.001 30 128 12345 | 99.83% | 99.35% | 99.30% | 16m 1s |
| 1 0.01 12 256 12345 | 99.37% | 98.83% | 98.94% | 5m 16s |
| 1 0.01 12 128 12345 | 99.11% | 99.07% | 99.01% | 6m 3s |
| 1 0.001 12 128 12345 | 99.39% | 99.25% | 99.15% | 6m 15s |
| 1 0.005 12 128 12345 | 99.54% | 99.28% | 99.11% | 6m 7s |
| 1 0.005 6 128 12345 | 99.21% | 99.23% | 99.19% | 3m 1s |
| 3 0.005 6 128 12345 | 99.21% | 99.00% | 98.97% | 3m 0s |
| 3 0.005 8 128 12345 | 99.47% | 99.00% | 98.83% | 4m 0s |
| 3 0.01 6 128 12345 | 98.99% | 98.92% | 98.91% | 3m 0s |
| 3 0.001 8 128 12345 | 99.29% | 98.95% | 98.69% | 5m 32s |
| 3 0.001 8 64 12345 | 99.44% | 98.93% | 99.04% | 6m 24s |
| 3 0.001 6 64 12345 | 99.26% | 99.15% | 99.07% | 4m 50s |
| 3 0.001 10 256 12345 | 99.22% | 98.90% | 98.83% | 8m 15s |
| 1 0.005 10 64 12345 | 99.43% | 98.95% | 99.21% | 8m 4s |
| 1 0.01 10 32 12345 | 95.61% | 98.57% | 98.58% | 10m 10s |
| 1 0.001 10 256 12345 | 99.13% | 99.08% | 98.94% | 8m 15s |
| 3 0.005 10 64 12345 | 99.38% | 99.17% | 99.12% | 8m 13s |
| 3 0.003 10 64 12345 | 99.52% | 99.02% | 98.98% | 8m 2s |
| 3 0.003 5 64 12345 | 99.13% | 99.30% | 99.19% | 4m 5s |
| 1 0.003 5 64 12345 | 99.10% | 99.03% | 99.00% | 4m 20s |
| 1 0.01 8 64 12345 | 98.84% | 98.48% | 98.47% | 6m 42s |
| MLP |  |  |  |  |
| 2 0.005 15 128 12345 | 99.01% | 97.90% | 97.76% | 2m 10s |
| 4 0.005 15 128 12345 | 98.95% | 98.90% | 97.67% | 2m 9s |
| 4 0.01 50 128 12345 | 97.50% | 97.10% | 96.93% | 7m 10s |
| 4 0.001 50 128 12345 | 99.89% | 98.57% | 98.40% | 6m 45s |
| 2 0.001 50 64 12345 | 99.85% | 98.38% | 98.25% | 7m 46s |
| 2 0.001 15 256 12345 | 99.69% | 98.28% | 98.19% | 0m 55s |
| 2 0.001 24 256 12345 | 99.84% | 98.53% | 98.24% | 1m 28s |
| 2 0.005 30 128 12345 | 99.31% | 97.95% | 97.55% | 3m 0s |
| 2 0.003 30 128 12345 | 99.56% | 98.07% | 97.79% | 2m 57s |
| 2 0.001 20 32 12345 | 99.62% | 97.98% | 97.89% | 5m 30s |
| 2 |  |  |  |  |
| 2 |  |  |  |  |
| 2 |  |  |  |  |
| 2 |  |  |  |  |
| 4 0.001 20 32 12345 | 99.52% | 98.32% | 98.17% | 7m 2s |
| 4 |  |  |  |  |
| 4 |  |  |  |  |
| 4 |  |  |  |  |
| 4 |  |  |  |  |
| 4 |  |  |  |  |
| 4 |  |  |  |  |

Try CNN with leaky\_relu and MLN with sigmoid and tanh. Try at least 2 different optimizers. 1 with Relu and 1 with leaky relu. Same for CNN