Final Project Part 4 - Neuron Network: 4+100*8+3

Sunday, August 18, 2024 1:01 AM

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Training the neural network...
Iteration 1, loss = 1.10515099
Iteration 2, loss = 1.08288964
Iteration 3, loss = 1.06459177
Iteration 4, loss = 1.04575564
Iteration 5, loss = 1.02418949
Iteration 6, loss = 0.99921033
Iteration 7, loss = 0.97061795
Iteration 8, loss = 0.93836906
Iteration 9, loss = 0.90279634
Iteration 10, loss = 0.86228706
Iteration 11, loss = 0.81577092
Iteration 12, loss = 0.76512504
Iteration 13, loss = 0.71112384
Iteration 14, loss = 0.65468167
Iteration 15, loss = 0.59735994
Iteration 16, loss = 0.54175131
Iteration 17, loss = 0.49007853
Iteration 18, loss = 0.44197367
Iteration 19, loss = 0.39838536
Iteration 20, loss = 0.35650515
Iteration 21, loss = 0.31432814
Iteration 22, loss = 0.27201633
Iteration 23, loss = 0.23154379
Iteration 24, loss = 0.19391160
Iteration 25, loss = 0.16091463
Iteration 26, loss = 0.13383057
Iteration 27, loss = 0.11210843
Iteration 28, loss = 0.09465132
Iteration 29, loss = 0.07992111
Iteration 30, loss = 0.06878273
Iteration 31, loss = 0.06168768
Iteration 32, loss = 0.05946300
Iteration 33, loss = 0.05975770
Iteration 34, loss = 0.05986791
Iteration 35, loss = 0.05822566
Iteration 36, loss = 0.05511846
Iteration 37, loss = 0.05195549
Iteration 38, loss = 0.04980040
Iteration 39, loss = 0.04881138
Iteration 40, loss = 0.04810914
Iteration 41, loss = 0.04749089
Iteration 42, loss = 0.04663322
Iteration 43, loss = 0.04559489
Iteration 44, loss = 0.04463970
Iteration 45, loss = 0.04365780
Iteration 46, loss = 0.04285417
Iteration 47, loss = 0.04052537
Iteration 48, loss = 0.03823625
Iteration 49, loss = 0.03685784
Iteration 50, loss = 0.03625989
Iteration 51, loss = 0.03548133
Iteration 52, loss = 0.03354539
Iteration 53, loss = 0.03149341
Iteration 54, loss = 0.03038547
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Iteration 54, loss = 0.03038547
Iteration 55, loss = 0.03002783
Iteration 56, loss = 0.02934357
Iteration 57, loss = 0.02801326
Iteration 58, loss = 0.02669648
Iteration 59, loss = 0.02578789
Iteration 60, loss = 0.02512467
Iteration 61, loss = 0.02479759
Iteration 62, loss = 0.02426399
Iteration 63, loss = 0.02349663
Iteration 64, loss = 0.02204703
Iteration 65, loss = 0.02049856
Iteration 66, loss = 0.01935882
Iteration 67, loss = 0.01859563
Iteration 68, loss = 0.01788178
Iteration 69, loss = 0.01702645
Iteration 70, loss = 0.01588520
Iteration 71, loss = 0.01458575
Iteration 72, loss = 0.01350825
Iteration 73, loss = 0.01271477
Iteration 74, loss = 0.01190962
Iteration 75, loss = 0.01099562
Iteration 76, loss = 0.00991902
Iteration 77, loss = 0.00898889
Iteration 78, loss = 0.00827770
Iteration 79, loss = 0.00747012
Iteration 80, loss = 0.00663702
Iteration 81, loss = 0.00606623
Iteration 82, loss = 0.00549427
Iteration 83, loss = 0.00488579
Iteration 84, loss = 0.00442999
Iteration 85, loss = 0.00391387
Iteration 86, loss = 0.00349088
Iteration 87, loss = 0.00310737
Iteration 88, loss = 0.00278205
Iteration 89, loss = 0.00248119
Iteration 90, loss = 0.00223947
Iteration 91, loss = 0.00199883
Iteration 92, loss = 0.00181600
Iteration 93, loss = 0.00163237
Iteration 94, loss = 0.00148158
Iteration 95, loss = 0.00135273
Iteration 96, loss = 0.00122594
Iteration 97, loss = 0.00112923
Iteration 98, loss = 0.00104743
Iteration 99, loss = 0.00097407
Iteration 100, loss = 0.00091119
Iteration 101, loss = 0.00085776
Iteration 102, loss = 0.00080805
Iteration 103, loss = 0.00076368
Iteration 104, loss = 0.00072665
Iteration 105, loss = 0.00069432
Iteration 106, loss = 0.00066425
Iteration 107, loss = 0.00063719
Training loss did not improve more than tol=0.000100 for 10 consecutive epochs. Stopping.
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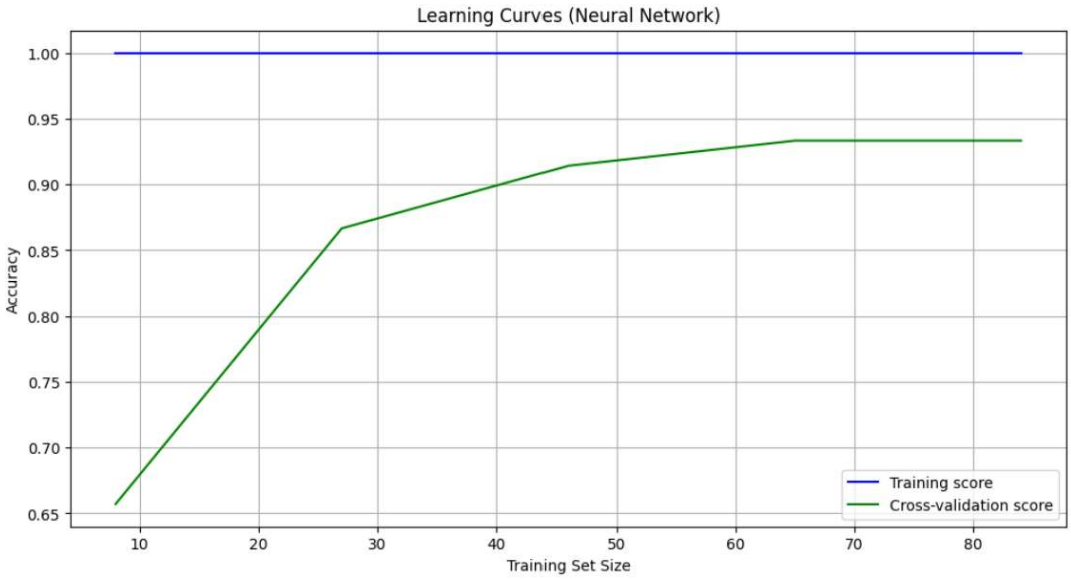
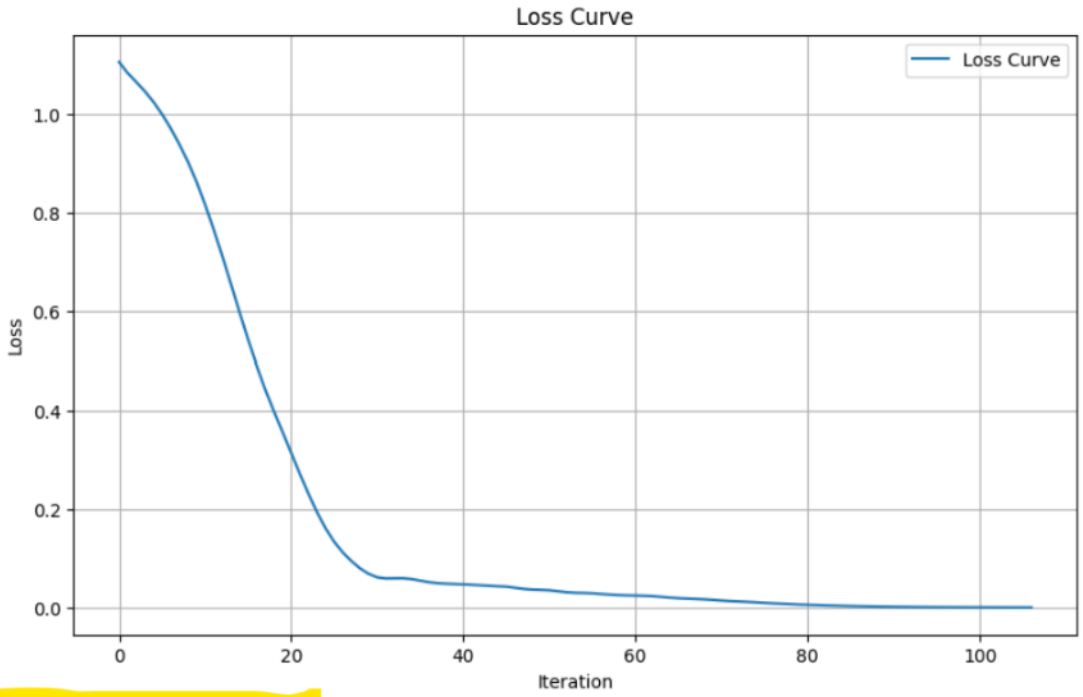
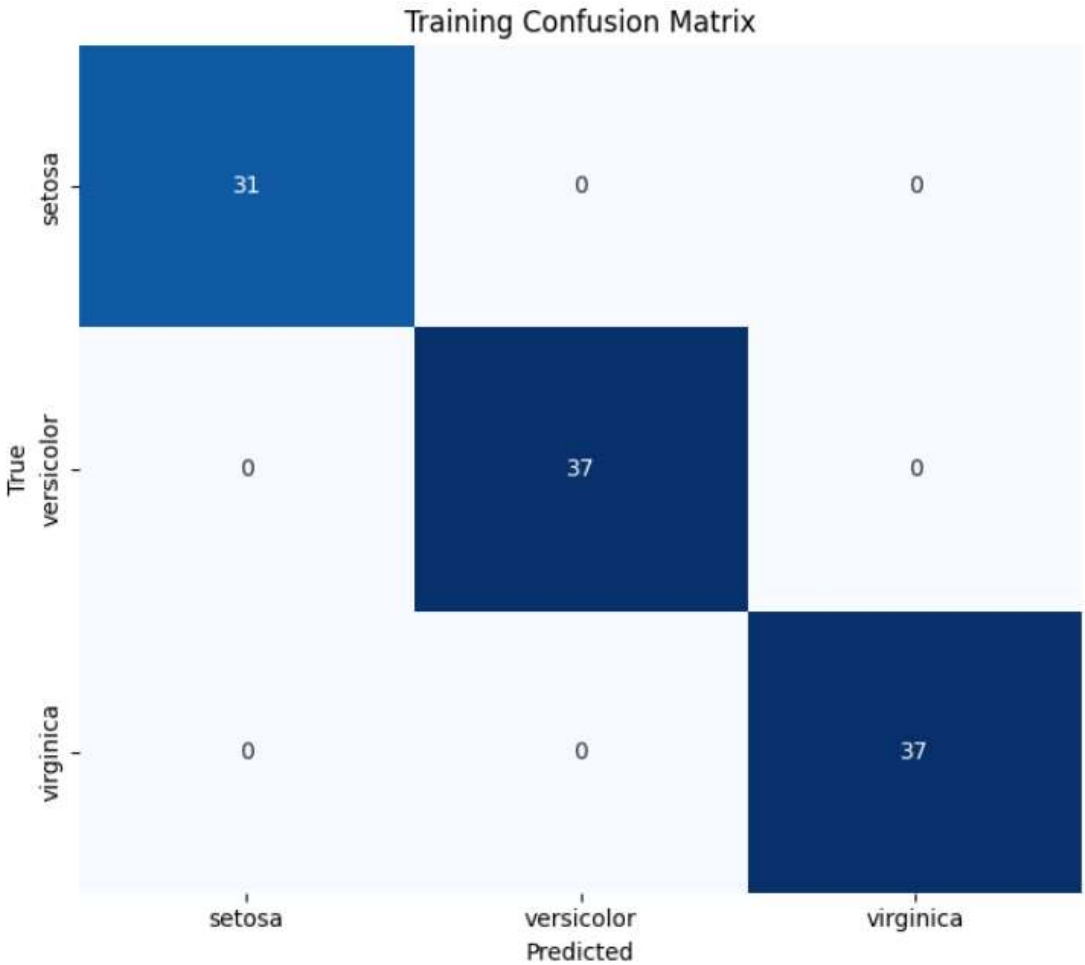
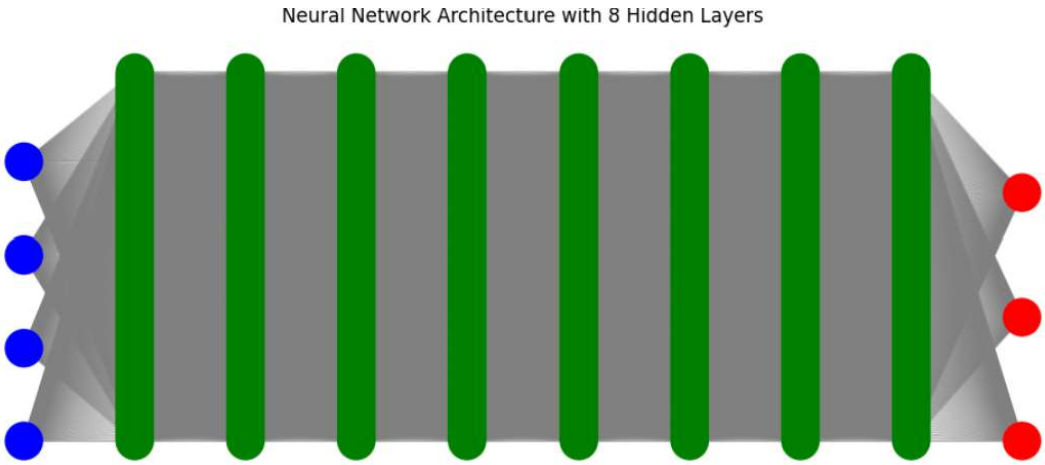




Norm of the Loss Function: 3.7430




Neural Network Architecture with 8 Hidden Layers