Aatmay S. Talati

CS 3600

Prof. Dave

Summer 2017

Report

Question 5

According to the data obtain

Pen: max = 0.907947; avg = 0.904803; std = 0.001922

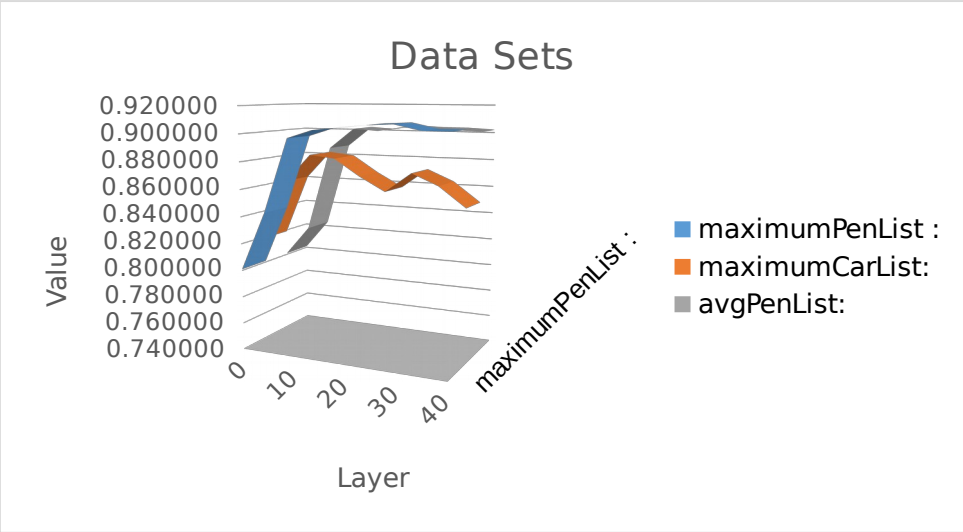
Car: max = 0.868455; avg = 0.852356; std = 0.016304

Both: avg = 0.878579; std = 0.028678

Running the data we can identify Pen data vs Car data because pen data has a better accuracy. This could be true due to a better training data for Pen Data.

Question 6

Iteration	Max Pen Set	Max Car Set	Avg Pen Set	Avg Car Set	Std Pen Set	Std Car Set
0	0.801000	0.819000	0.801000	0.818000	0.000000	0.001000
5	0.844000	0.864000	0.823000	0.861000	0.023000	0.002000
10	0.898000	0.884000	0.887000	0.865000	0.005000	0.015000
15	0.904000	0.882000	0.902000	0.857000	0.002000	0.014000
20	0.906000	0.870000	0.901000	0.856000	0.005000	0.010000
25	0.908000	0.860000	0.904000	0.855000	0.002000	0.003000
30	0.909000	0.874000	0.903000	0.856000	0.007000	0.010000
35	0.905000	0.866000	0.903000	0.854000	0.001000	0.006000
40	0.905000	0.852000	0.902000	0.847000	0.003000	0.004000



From the data, we can analyze that the as the number of hidden layers increases the accuracy also increases and the standard deviation decreases. The peak of pen set is around layer 30 vs the car set which is at layer 10. Data seems to go down for the car set due to being at optimal around layers 30-40