

(BONUS ASSIGNMENT)

Ques3:

In this assignment, we want to use k-fold cross-validation to find the best number of hidden nodes (using a single hidden layer).

Output of Example run:

Size 1: 0.45499999999999996
Size 2: 0.4
Size 3: 0.4
Size 4: 0.3675
Size 5: 0.37124999999999997
Size 6: 0.30125
Size 7: 0.33625000000000005
Size 8: 0.27375
Size 9: 0.26749999999999996
Size 10: 0.22
Size 11: 0.3175
Size 12: 0.21
Size 13: 0.22125
Size 14: 0.22999999999999998
Size 15: 0.21500000000000002
Size 16: 0.18874999999999997
Size 17: 0.19749999999999998
Size 18: 0.22249999999999998
Size 19: 0.19625
Size 20: 0.15875

Optimal Solution: 20 hidden layers (because error is lowest)

