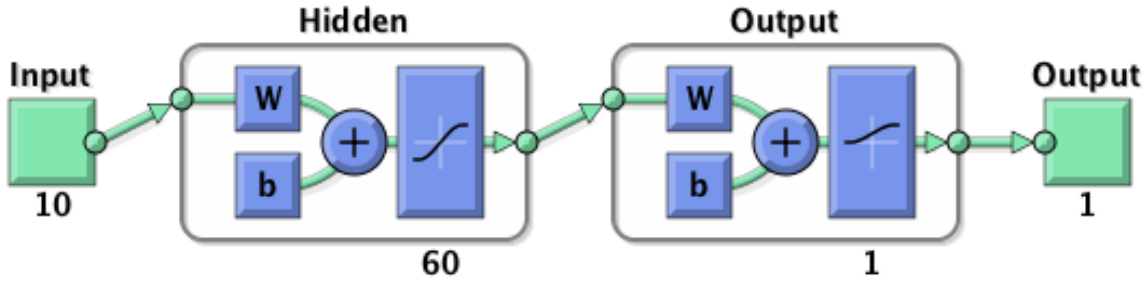
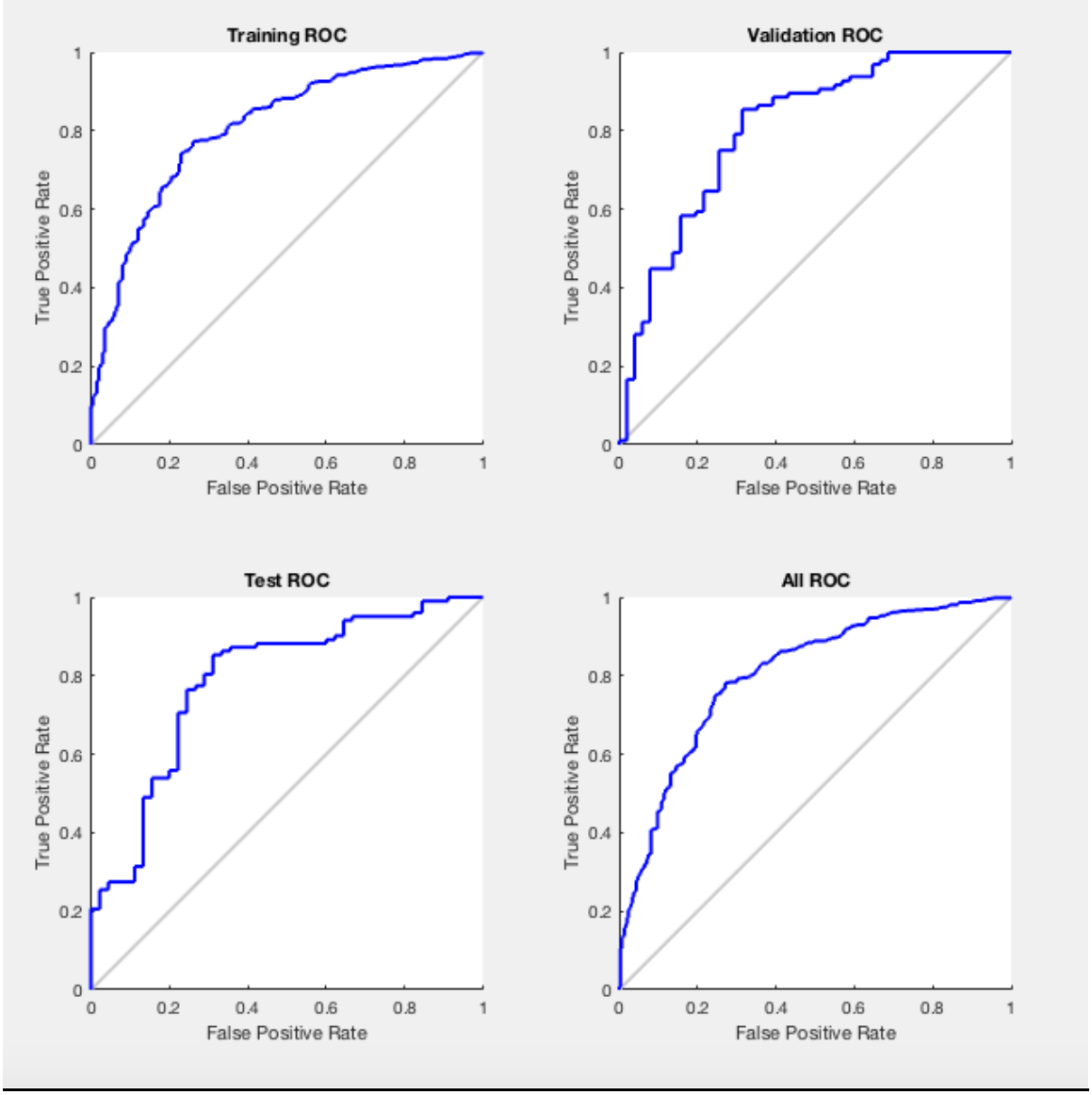
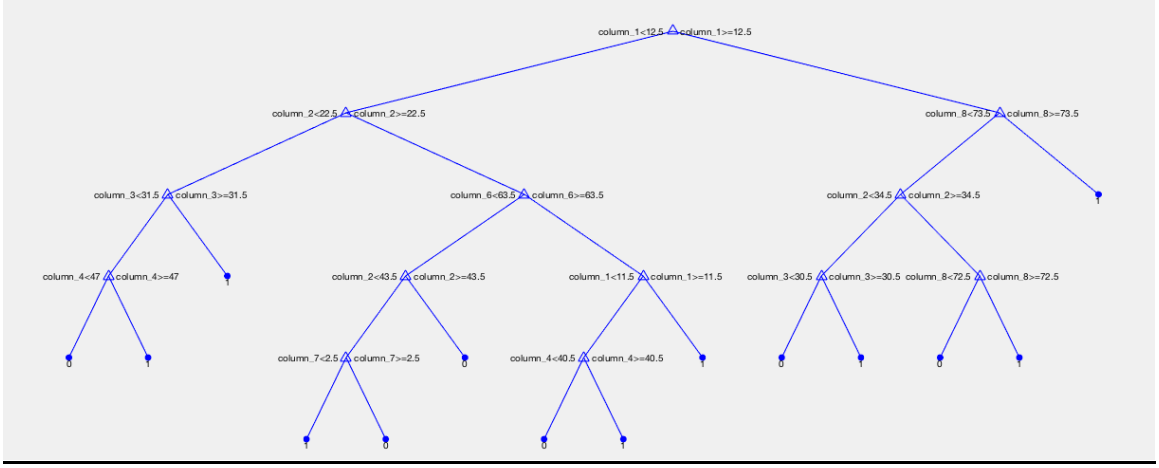
Training 980 and testing 20 Results

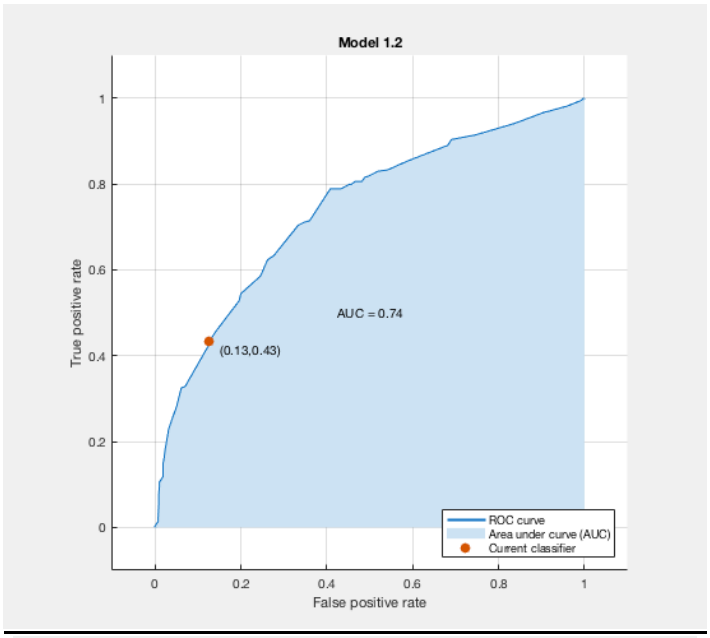


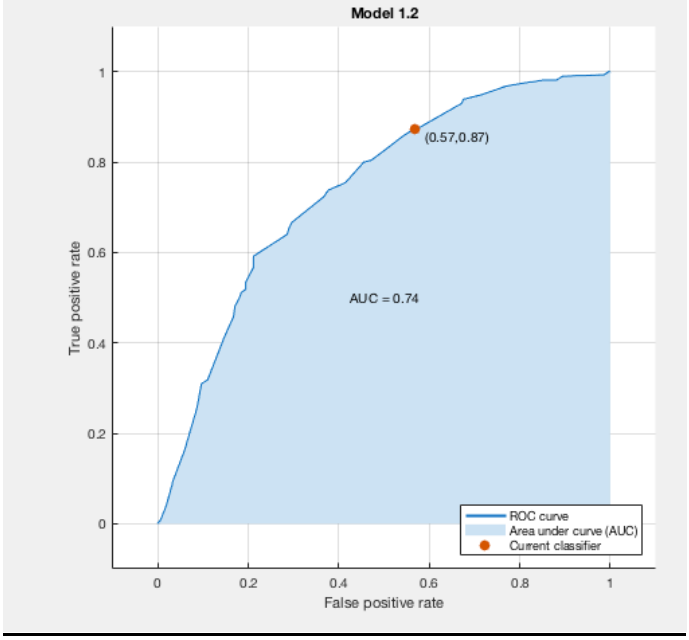
Training Confusion Matrix
96
14.0%
57
8.3%
62.7%
37.3%
104
15.2%
429
62.5%
80.5%
19.5%
48.0%
52.0%
88.3%
11.7%
76.5%
23.5%
Output Class
Target Class
Validation Confusion Matrix
22
15.0%
7
4.8%
75.9%
24.1%
29
19.7%
89
60.5%
75.4%
24.6%
43.1%
56.9%
92.7%
7.3%
75.5%
24.5%
Test Confusion Matrix
22
15.0%
12
8.2%
64.7%
35.3%
23
15.6%
90
61.2%
79.6%
20.4%
48.9%
51.1%
88.2%
11.8%
76.2%
23.8%
All Confusion Matrix
140
14.3%
76
7.8%
64.8%
35.2%
156
15.9%
608
62.0%
79.6%
20.4%
47.3%
52.7%
88.9%
11.1%
76.3%
23.7%


Training ROC
Validation ROC
Test ROC
All ROC
True Positive Rate
False Positive Rate
0
0.2
0.4
0.6
0.8
1

Decision Tree Results




Model 1.2
True positive rate
False positive rate
AUC = 0.74
(0.13,0.43)
ROC curve
Area under curve (AUC)
Current classifier
0
0.2
0.4
0.6
0.8
1


Model 1.2
True positive rate
False positive rate
AUC = 0.74
(0.57,0.87)
ROC curve
Area under curve (AUC)
Current classifier
0
0.2
0.4
0.6
0.8
1

Test Case Neural Network VS Decision Tree

train980_20.xlsx

Neural Network Testing Results	Predictions		
Row Labels	Bad	Good	Grand Total
FAIL	1	3	4
Pass	3	13	16
Grand Total	**4**	**16**	**20**

Decision Tree Testing Results	Predictions		
Row Labels	Bad	Good	Grand Total
Fail	1	3	4
Pass	3	13	16
Grand Total	**4**	**16**	**20**

Decision Tree Vs Neural Network Predictions	Predictions		
Comparison	Bad	Good	Grand Total
Match	2	10	12
Unmatch	2	6	8
Grand Total	**4**	**16**	**20**