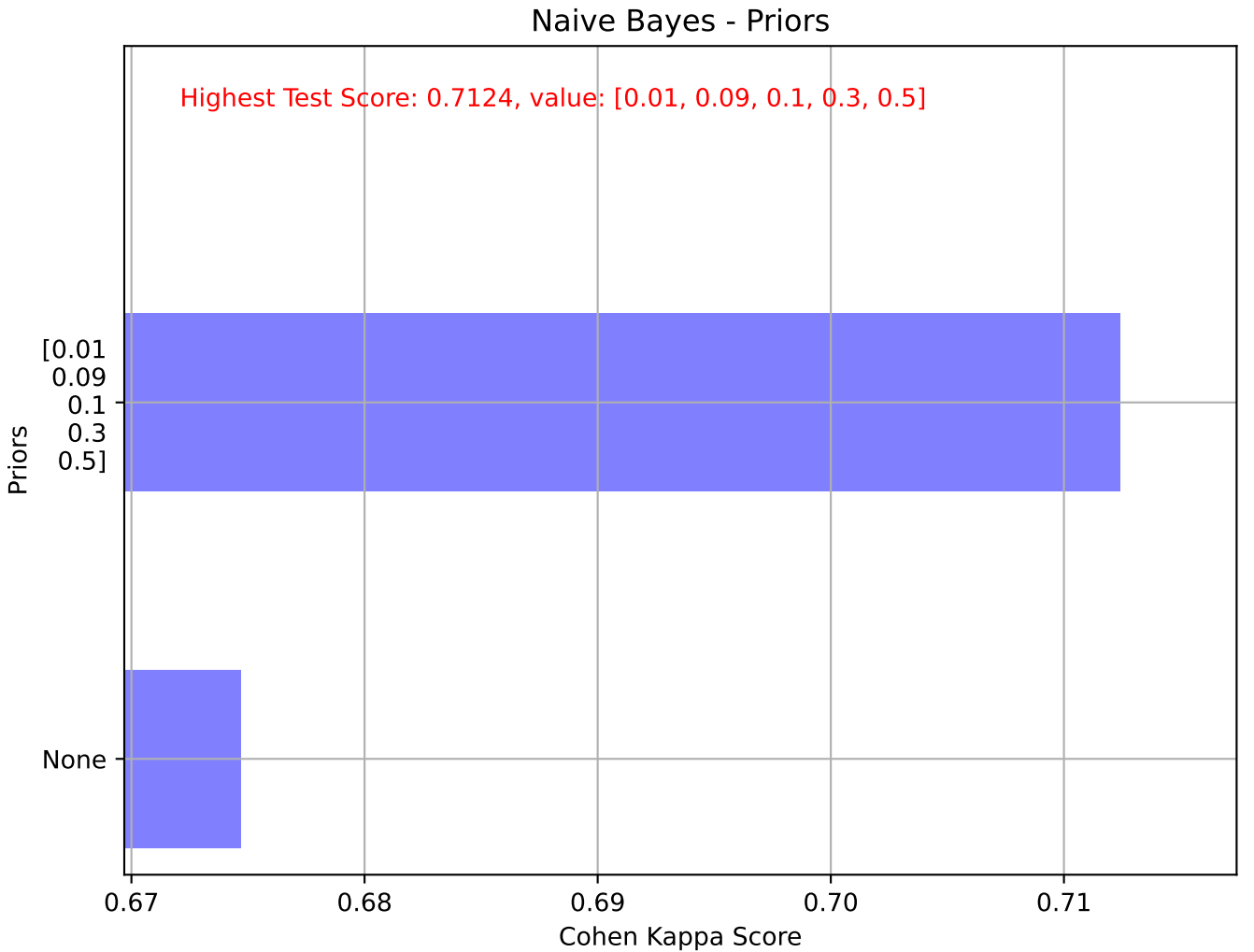
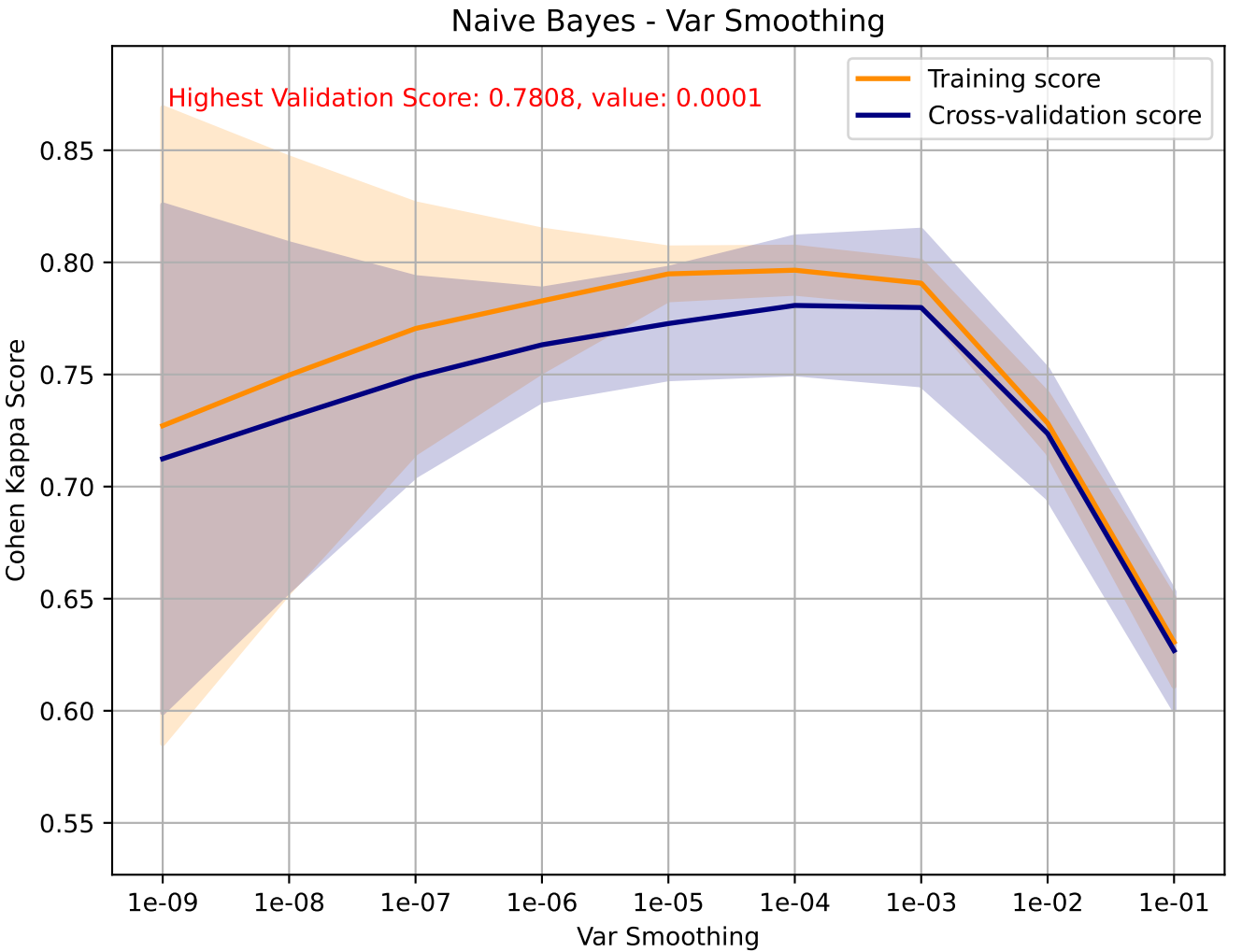
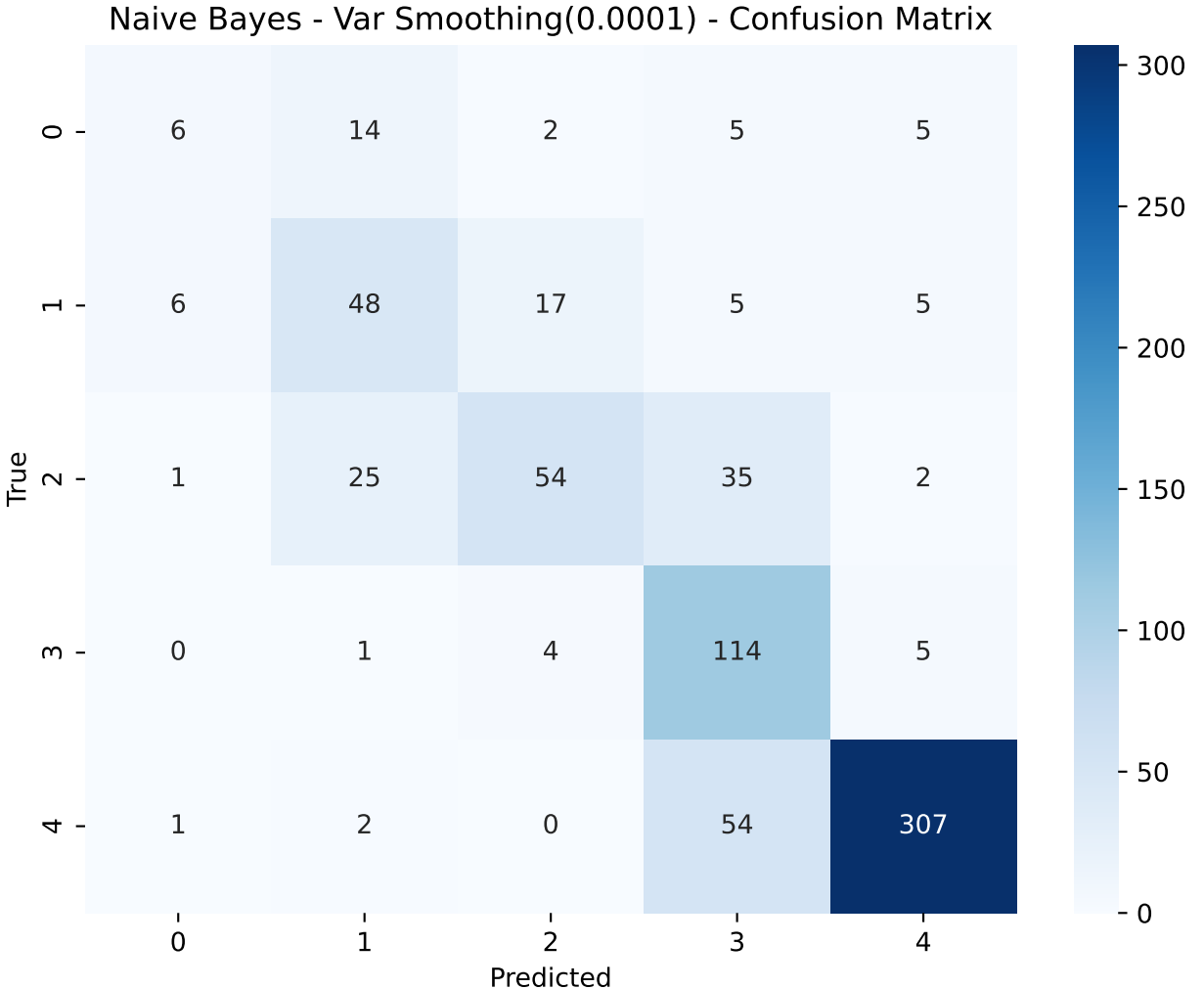
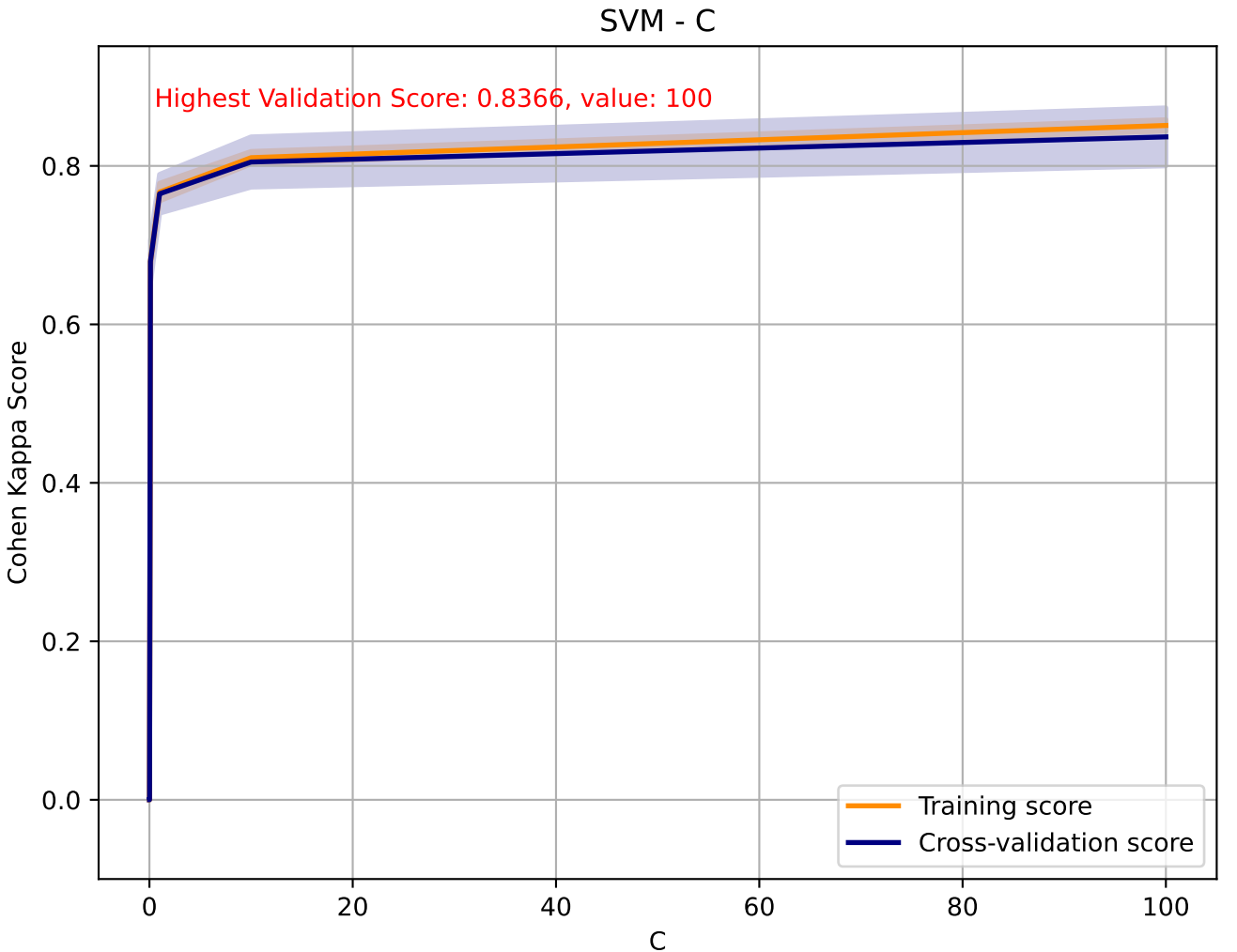
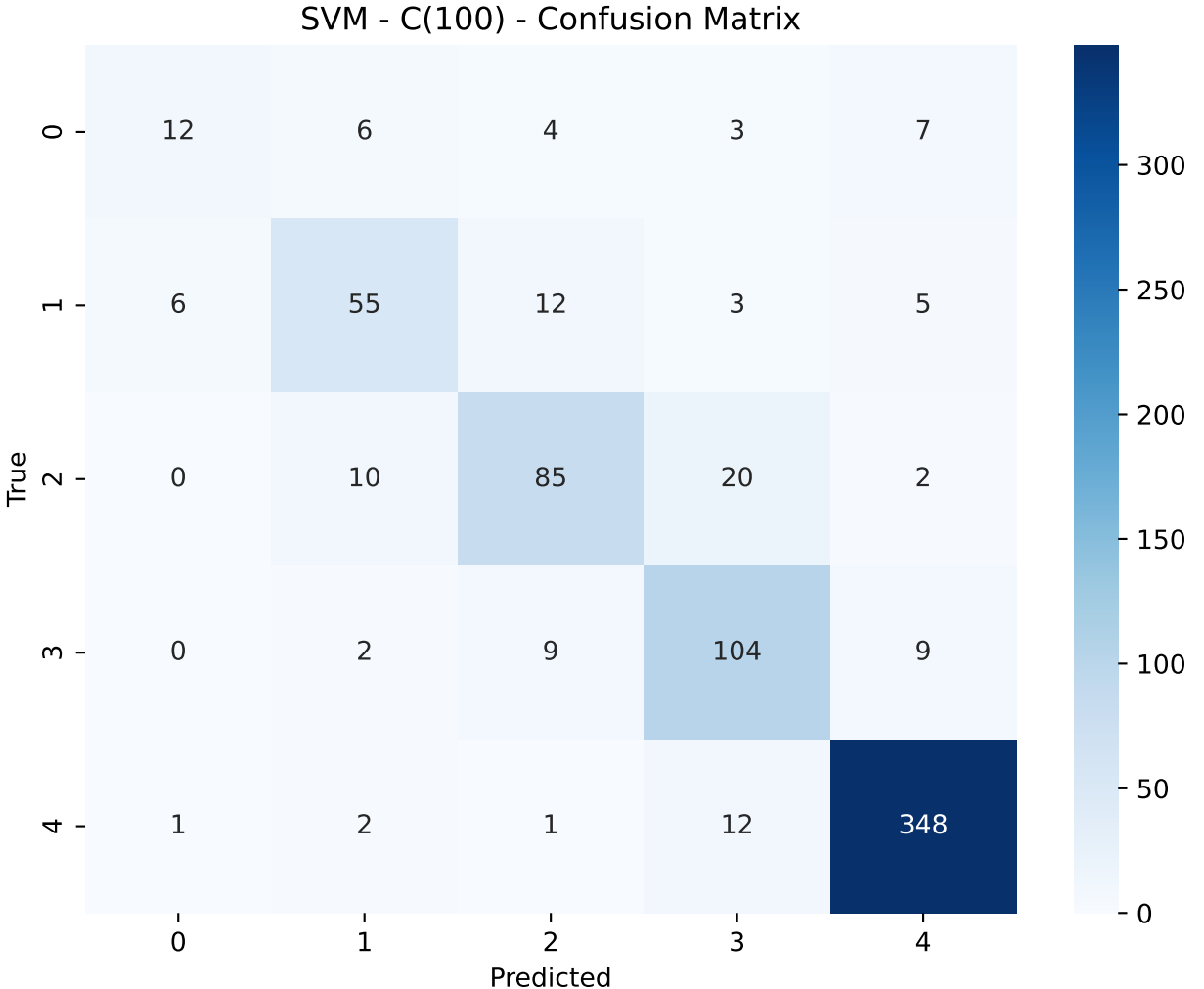
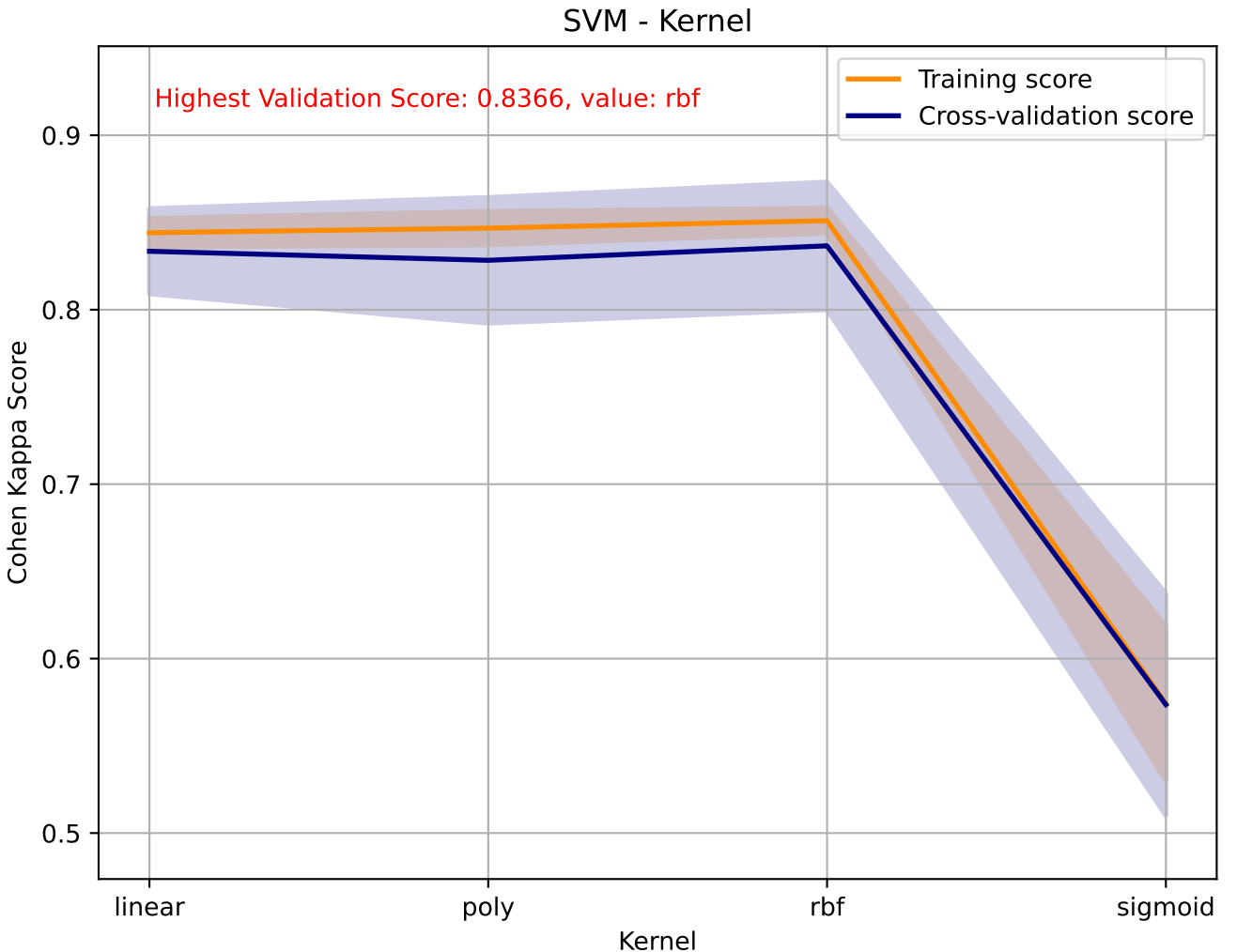

Naive Bayes - Priors
Highest Test Score: 0.7124, value: [0.01, 0.09, 0.1, 0.3, 0.5]
Priors
[0.01
0.09
0.1
0.3
0.5]
None
0.67
0.68
0.69
0.70
0.71
Cohen Kappa Score

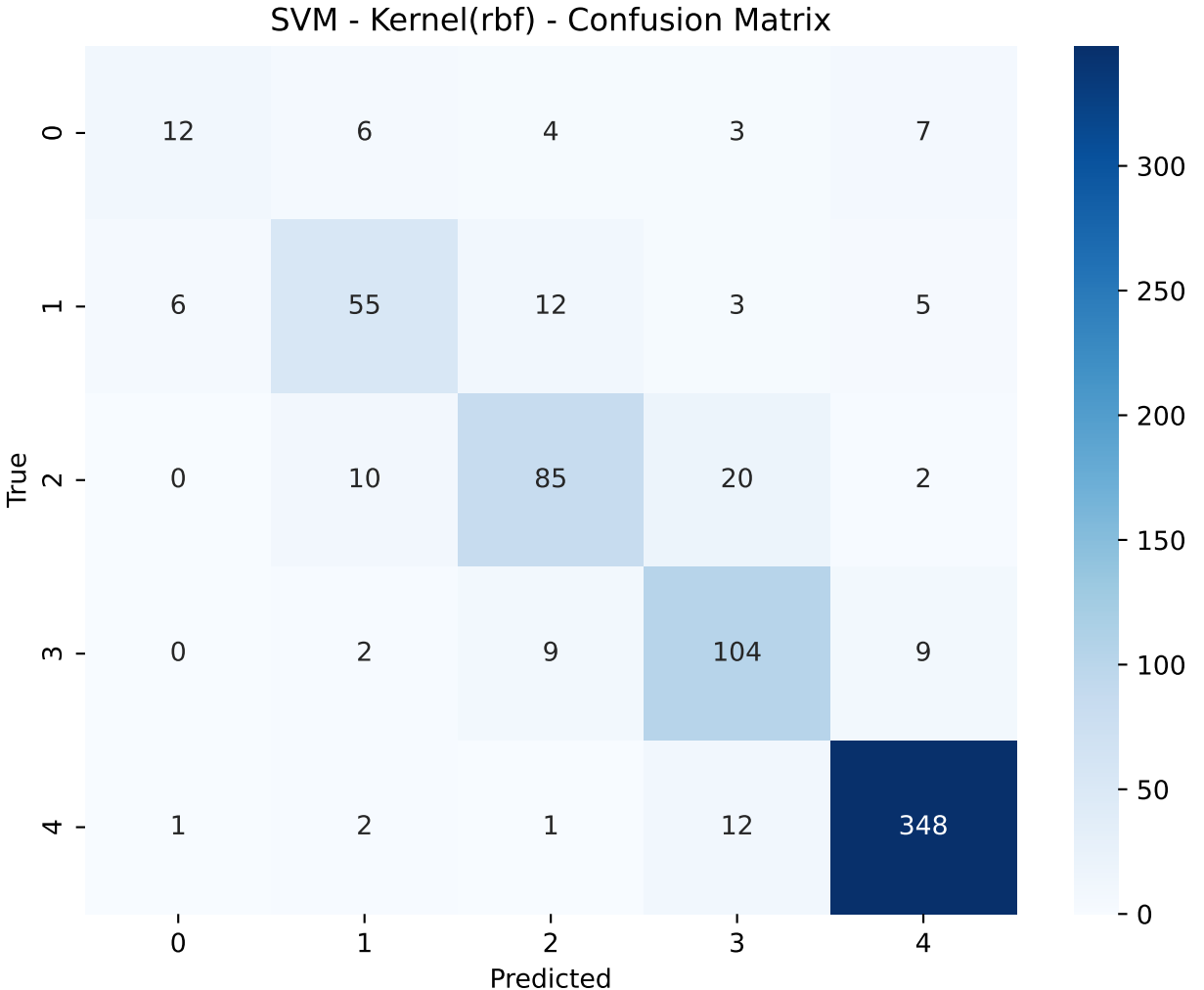

Naive Bayes - Var Smoothing
Highest Validation Score: 0.7808, value: 0.0001
Training score
Cross-validation score
Cohen Kappa Score
0.85
0.80
0.75
0.70
0.65
0.60
0.55
1e-09
1e-08
1e-07
1e-06
1e-05
1e-04
1e-03
1e-02
1e-01
Var Smoothing

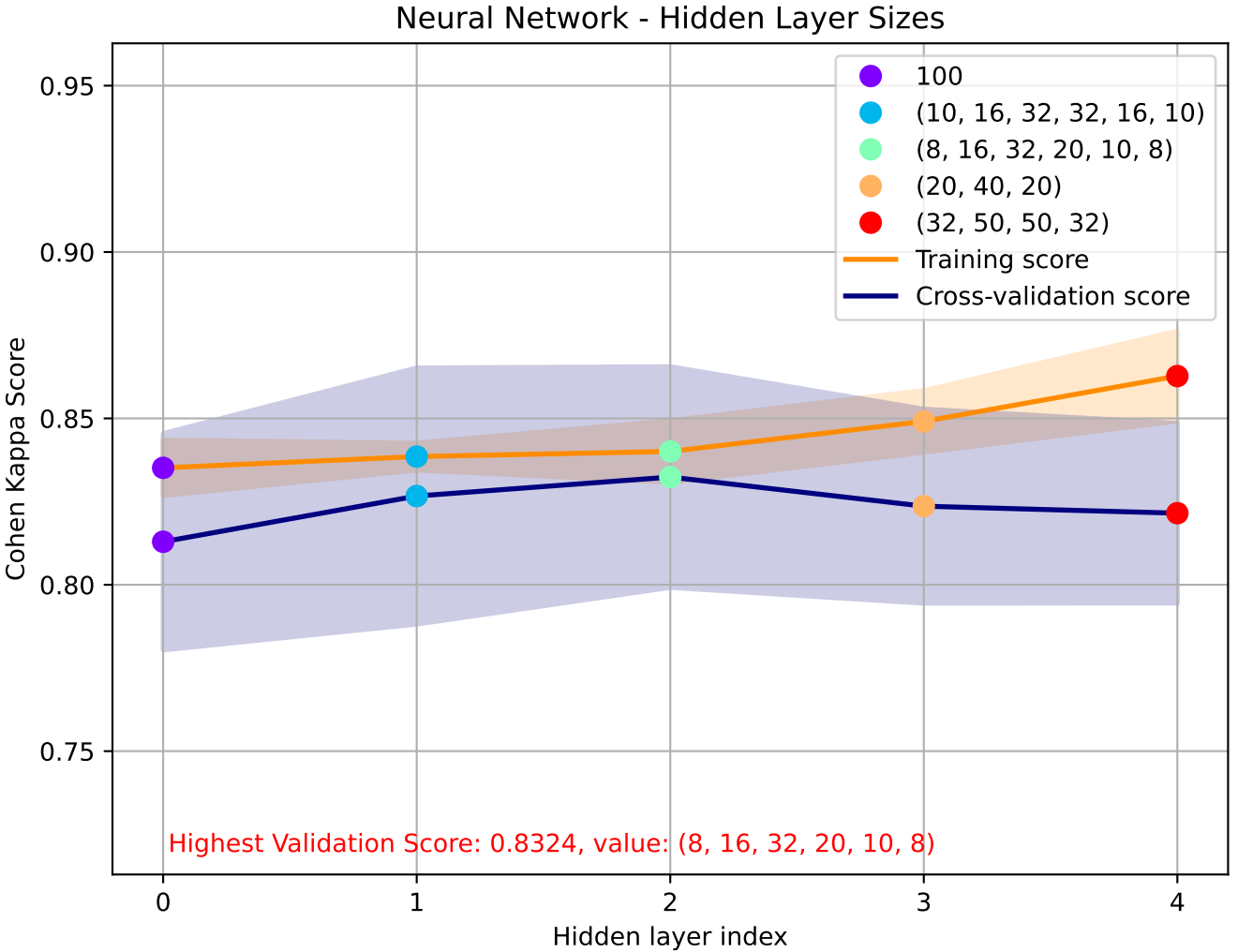

Naive Bayes - Var Smoothing(0.0001) - Confusion Matrix
True
Predicted
0
1
2
3
4
6 14 2 5 5
6 48 17 5 5
1 25 54 35 2
0 1 4 114 5
1 2 0 54 307
300
250
200
150
100
50
0

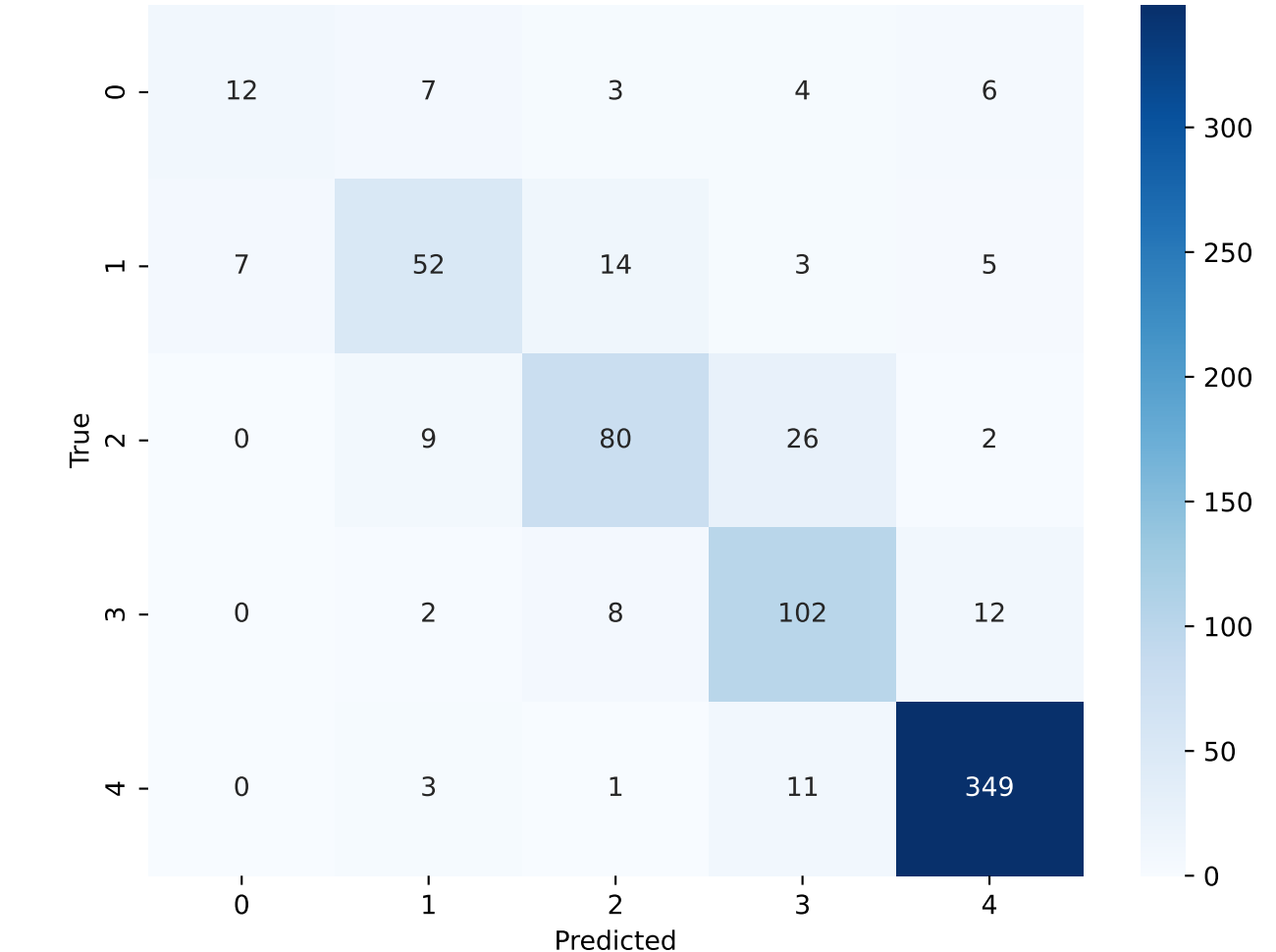

SVM - C
Highest Validation Score: 0.8366, value: 100
Cohen Kappa Score
0.0
0.2
0.4
0.6
0.8
0
20
40
60
80
100
C
Training score
Cross-validation score

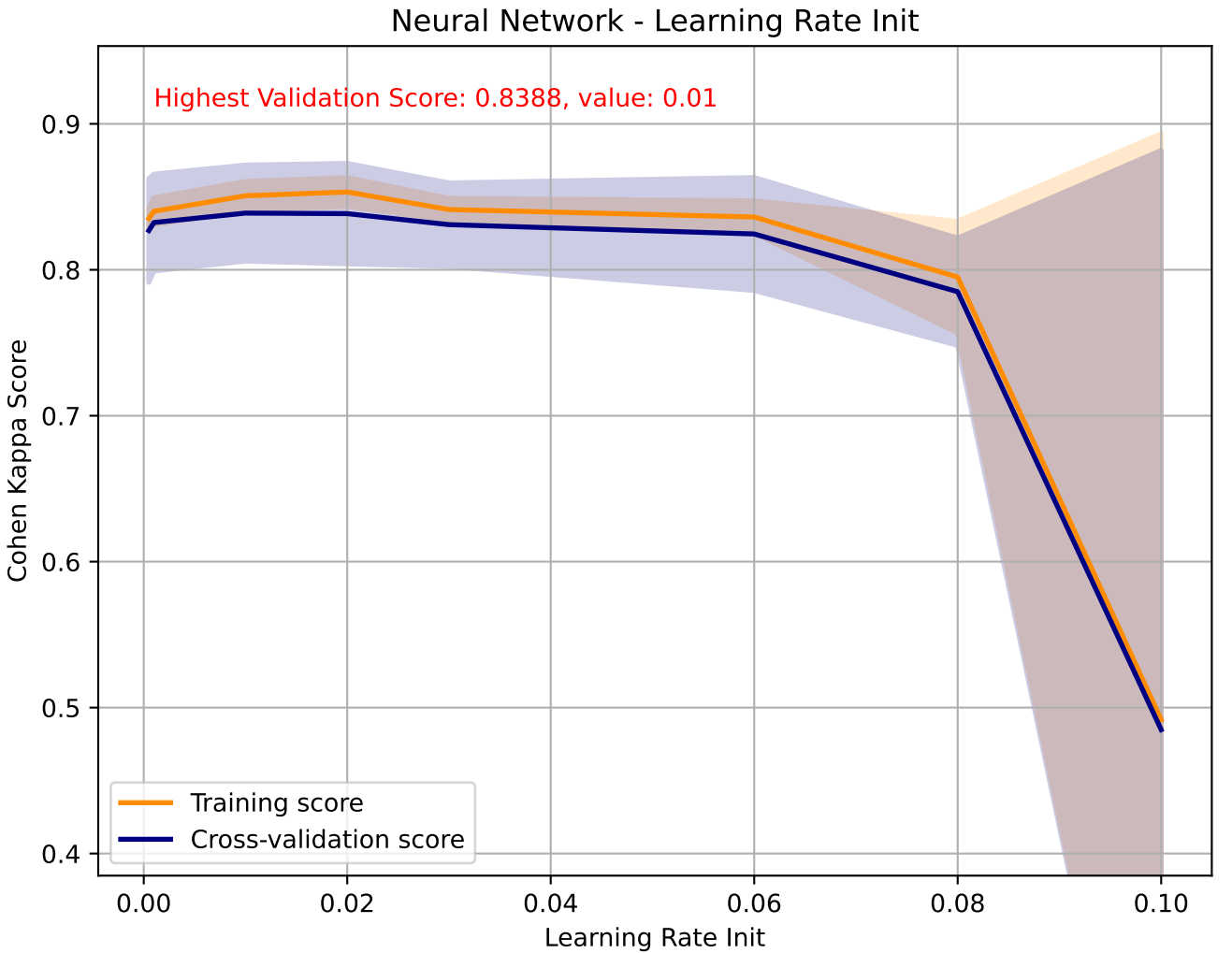

SVM - C(100) - Confusion Matrix
True
Predicted
0
1
2
3
4
12 6 4 3 7
6 55 12 3 5
0 10 85 20 2
0 2 9 104 9
1 2 1 12 348
300
250
200
150
100
50
0

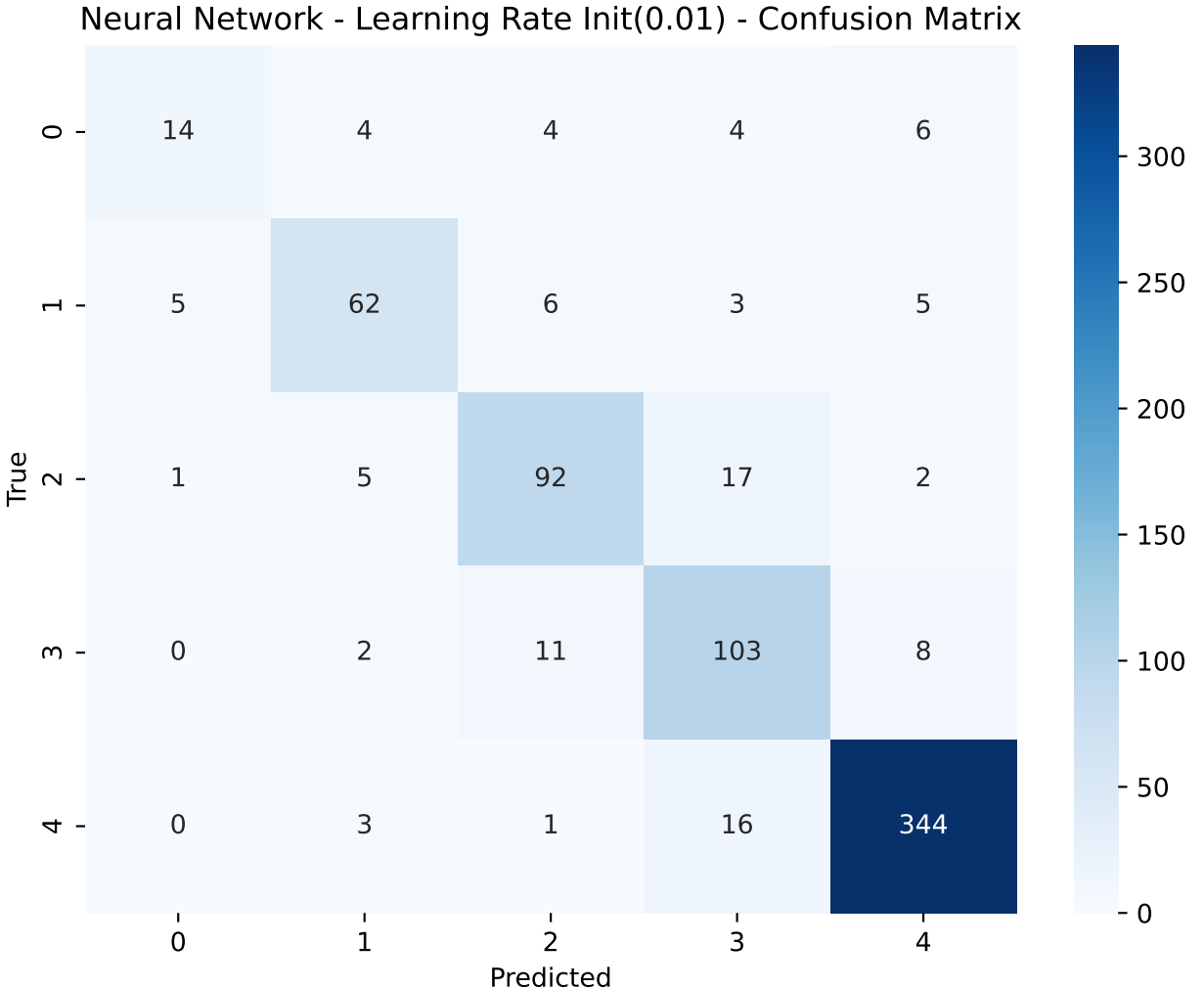

SVM - Kernel
Highest Validation Score: 0.8366, value: rbf
Training score
Cross-validation score
Cohen Kappa Score
0.9
0.8
0.7
0.6
0.5
linear
poly
rbf
sigmoid
Kernel


SVM - Kernel(rbf) - Confusion Matrix
True
Predicted
0
1
2
3
4
12 6 4 3 7
6 55 12 3 5
0 10 85 20 2
0 2 9 104 9
1 2 1 12 348
300
250
200
150
100
50
0


Neural Network - Hidden Layer Sizes
100
(10, 16, 32, 32, 16, 10)
(8, 16, 32, 20, 10, 8)
(20, 40, 20)
(32, 50, 50, 32)
Training score
Cross-validation score
Cohen Kappa Score
0.95
0.90
0.85
0.80
0.75
Highest Validation Score: 0.8324, value: (8, 16, 32, 20, 10, 8)
0
1
2
3
4
Hidden layer index


Neural Network - Hidden Layer Sizes((8, 16, 32, 20, 10, 8)) - Confusion Matrix
True
Predicted
0
1
2
3
4
12 7 3 4 6
7 52 14 3 5
0 9 80 26 2
0 2 8 102 12
0 3 1 11 349
300
250
200
150
100
50
0


Neural Network - Learning Rate Init
Highest Validation Score: 0.8388, value: 0.01
Cohen Kappa Score
0.9
0.8
0.7
0.6
0.5
0.4
0.00
0.02
0.04
0.06
0.08
0.10
Learning Rate Init
Training score
Cross-validation score


Neural Network - Learning Rate Init(0.01) - Confusion Matrix
True
Predicted
0
1
2
3
4
14 4 4 4 6
5 62 6 3 5
1 5 92 17 2
0 2 11 103 8
0 3 1 16 344
300
250
200
150
100
50
0