**Majority vote, M = 128**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Acc, validation (%)** | **Sensitivity, validation (%)** | **Specificity, validation (%)** | **PPV, validation (%)** | **F1 score, validation** | **AUC, validation** | **Training time (sec)** |
| **Lin SVM** | 55.58 Error | 0 | 100 | 0 | 0 |  | 15.563 |
| **Quad SVM** | 55.58 Error | 0 | 100 | 0 | 0 |  | 14.290 |
| **Cubic SVM** | 55.58 Error | 0 | 100 | 0 | 0 |  | 10.177 |
| **RBF SVM** | 55.58 Error | 0 | 100 | 0 | 0 |  | 10.581 |
| **3 kNN** | 55.58 Error | 0 | 100 | 0 | 0 |  | 233.27 |
| **5 kNN** | 55.58 Error | 0 | 100 | 0 | 0 |  | 233.53 |
| **7 kNN** | 55.58 Error | 0 | 100 | 0 | 0 |  | 251.24 |
| **9 kNN** | 55.58 Error | 0 | 100 | 0 | 0 |  | 236.25 |
| **RF 5** | 90.58 | 89.36 | 91.55 | 89.42 | 0.8939 | 0.94 | 28.780 |
| **RF 10** | 92.00 | 91.18 | 92.65 | 90.84 | 0.9101 | 0.96 | 33.946 |
| **RF 20** | 94.56 | 96.49 | 93.01 | 91.69 | 0.9403 | 0.98 | 34.362 |
| **RF 30** | 95.54 | 96.42 | 94.83 | 93.71 | 0.9505 | 0.98 | 39.400 |
| **RF 40** | 96.26 | 97.27 | 95.45 | 94.47 | 0.9585 | 0.99 | 43.304 |
| **RF 50** | 96.38 | 97.16 | 95.75 | 94.82 | 0.9598 | 0.99 | 44.300 |

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| --- | --- | --- | --- | --- | --- | --- |
|  | **Acc, testing (%)** | **Sensitivity, testing (%)** | **Specificity, testing (%)** | **PPV, testing (%)** | **F1 score, testing** | **AUC, testing** |
| **Lin SVM** |  |  |  |  |  |  |
| **Quad SVM** |  |  |  |  |  |  |
| **Cubic SVM** |  |  |  |  |  |  |
| **RBF SVM** |  |  |  |  |  |  |
| **3 kNN** |  |  |  |  |  |  |
| **5 kNN** |  |  |  |  |  |  |
| **7 kNN** |  |  |  |  |  |  |
| **9 kNN** |  |  |  |  |  |  |
| **RF 5** | 60.47 | 55.81 | 64.48 | 57.57 | 0.5668 | 0.7568 |
| **RF 10** | 64.70 | 63.33 | 65.88 | 61.58 | 0.6244 | 0.7112 |
| **RF 20** | 61.64 | 51.15 | 70.70 | 60.11 | 0.5527 | 0.6555 |
| **RF 30** | 61.62 | 50.28 | 70.66 | 59.67 | 0.5457 | 0.6515 |
| **RF 40** | 62.06 | 52.22 | 70.56 | 60.49 | 0.5605 | 0.6493 |
| **RF 50** | 61.73 | 52.25 | 69.91 | 59.99 | 0.5586 | 0.5837 |

**Majority vote, M = 60**

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| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Acc, validation (%)** | **Sensitivity, validation (%)** | **Specificity, validation (%)** | **PPV, validation (%)** | **F1 score, validation** | **AUC, validation** | **Training time (sec)** |
| **Lin SVM** | 97.01 | 97.16 | 96.90 | 96.14 | 0.9664 | 0.99 | 612.29 |
| **Quad SVM** | 98.02 | 98.43 | 97.70 | 97.14 | 0.9778 | 0.99 | 340.52 |
| **Cubic SVM** | 97.83 | 98.18 | 97.56 | 96.96 | 0.9757 | 0.99 | 940.42 |
| **RBF SVM** | 95.55 | 91.93 | 98.41 | 97.86 | 0.9481 | 0.99 | 1204 |
| **3 kNN** | 97.75 | 97.61 | 97.85 | 97.31 | 0.9746 | 0.99 | 1077.9 |
| **5 kNN** | 97.45 | 96.71 | 98.04 | 97.51 | 0.9711 | 1.00 | 1047.1 |
| **7 kNN** | 97.03 | 96.02 | 97.83 | 97.24 | 0.9663 | 1.00 | 1078 |
| **9 kNN** | 96.69 | 95.51 | 97.63 | 96.97 | 0.9623 | 1.00 | 1049.8 |
| **RF 5** | 90.73 | 97.37 | 85.46 | 84.18 | 0.9030 | 0.94 | 65.684 |
| **RF 10** | 92.18 | 92.66 | 91.79 | 89.81 | 0.9121 | 0.95 | 72.129 |
| **RF 20** | 94.50 | 96.13 | 93.21 | 91.83 | 0.9393 | 0.97 | 85.178 |
| **RF 30** | 95.96 | 97.40 | 94.82 | 93.73 | 0.9553 | 0.98 | 100.81 |
| **RF 40** | 96.76 | 97.41 | 96.24 | 95.37 | 96.38 | 0.99 | 107.24 |
| **RF 50** | 96.87 | 97.69 | 96.22 | 95.35 | 0.9651 | 0.98 | 110.28 |

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| --- | --- | --- | --- | --- | --- | --- |
|  | **Acc, testing (%)** | **Sensitivity, testing (%)** | **Specificity, testing (%)** | **PPV, testing (%)** | **F1 score, testing** | **AUC, testing** |
| **Lin SVM** | 58.94 | 74.60 | 33.31 | 64.68 | 0.6928 | 0.7956 |
| **Quad SVM** | 67.93 | 44.93 | 87.60 | 75.60 | 0.5637 | 0.8146 |
| **Cubic SVM** | 66.01 | 44.71 | 84.22 | 70.78 | 0.5480 | 0.7586 |
| **RBF SVM** | 65.13 | 29.09 | 95.94 | 85.97 | 0.4347 | 0.7551 |
| **3 kNN** | 49.96 | 76.35 | 27.40 | 47.34 | 0.5845 | 0.5352 |
| **5 kNN** | 49.92 | 75.66 | 27.93 | 47.30 | 0.5821 | 0.5449 |
| **7 kNN** | 50.06 | 75.55 | 28.26 | 47.38 | 0.5824 | 0.5500 |
| **9 kNN** | 50.08 | 75.03 | 28.75 | 47.38 | 0.5808 | 0.5536 |
| **RF 5** | 72.61 | 89.14 | 58.48 | 64.73 | 0.7500 | 0.8430 |
| **RF 10** | 74.51 | 73.43 | 75.43 | 71.87 | 0.7264 | 0.8039 |
| **RF 20** | 76.87 | 78.68 | 75.32 | 73.16 | 0.7582 | 0.8032 |
| **RF 30** | 74.13 | 73.52 | 74.65 | 71.26 | 0.7237 | 0.8056 |
| **RF 40** | 73.33 | 72.94 | 73.67 | 70.31 | 0.7160 | 0.7671 |
| **RF 50** | 73.56 | 73.33 | 73.76 | 70.50 | 0.7189 | 0.7582 |

**Majority vote, M = 20**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Acc, validation (%)** | **Sensitivity, validation (%)** | **Specificity, validation (%)** | **PPV, validation (%)** | **F1 score, validation** | **AUC, validation** | **Training time (sec)** |
| **Lin SVM** | 55.72 Error | 0 | 100 | 0 | 0 |  | 44.671 |
| **Quad SVM** | 55.72 Error | 0 | 100 | 0 | 0 |  | 45.726 |
| **Cubic SVM** | 55.72 Error | 0 | 100 | 0 | 0 |  | 44.188 |
| **RBF SVM** | 55.72 Error | 0 | 100 | 0 | 0 |  | 46.773 |
| **3 kNN** | 55.72 Error | 0 | 100 | 0 | 0 |  | 9107.6 |
| **5 kNN** | 55.72 Error | 0 | 100 | 0 | 0 |  | 9188.7 |
| **7 kNN** | 55.72 Error | 0 | 100 | 0 | 0 |  | 9134.4 |
| **9 kNN** | 55.72 Error | 0 | 100 | 0 | 0 |  | 9178.0 |
| **RF 5** | 90.21 | 87.97 | 91.99 | 89.72 | 0.8884 | 0.93 | 217.79 |
| **RF 10** | 91.88 | 96.78 | 87.98 | 86.49 | 0.9134 | 0.96 | 259.32 |
| **RF 20** | 94.20 | 97.43 | 91.63 | 90.24 | 0.9370 | 0.97 | 283.99 |
| **RF 30** | 95.10 | 96.81 | 93.75 | 92.49 | 0.9460 | 0.98 | 288.47 |
| **RF 40** | 95.66 | 97.18 | 94.44 | 93.28 | 0.9520 | 0.98 | 293.86 |
| **RF 50** | 95.79 | 96.84 | 94.95 | 93.84 | 0.9532 | 0.98 | 334.15 |

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| --- | --- | --- | --- | --- | --- | --- |
|  | **Acc, testing (%)** | **Sensitivity, testing (%)** | **Specificity, testing (%)** | **PPV, testing (%)** | **F1 score, testing** | **AUC, testing** |
| **Lin SVM** |  |  |  |  |  |  |
| **Quad SVM** |  |  |  |  |  |  |
| **Cubic SVM** |  |  |  |  |  |  |
| **RBF SVM** |  |  |  |  |  |  |
| **3 kNN** |  |  |  |  |  |  |
| **5 kNN** |  |  |  |  |  |  |
| **7 kNN** |  |  |  |  |  |  |
| **9 kNN** |  |  |  |  |  |  |
| **RF 5** | 78.37 | 82.86 | 74.53 | 73.54 | 0.7792 | 0.8444 |
| **RF 10** | 75.46 | 75.75 | 75.22 | 72.30 | 0.7399 | 0.8289 |
| **RF 20** | 76.00 | 76.52 | 75.56 | 72.78 | 0.7460 | 0.8169 |
| **RF 30** | 74.56 | 76.40 | 72.99 | 70.73 | 0.7346 | 0.7931 |
| **RF 40** | 75.08 | 76.50 | 73.86 | 71.43 | 0.7388 | 0.8025 |
| **RF 50** | 76.42 | 80.33 | 73.07 | 71.82 | 0.7584 | 0.8004 |

**Extra for later use**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Acc, validation (%)** | **Sensitivity, validation (%)** | **Specificity, validation (%)** | **PPV, validation (%)** | **F1 score, validation** | **AUC, validation** | **Training time (sec)** |
| **Lin SVM** |  |  |  |  |  |  |  |
| **Quad SVM** |  |  |  |  |  |  |  |
| **Cubic SVM** |  |  |  |  |  |  |  |
| **RBF SVM** |  |  |  |  |  |  |  |
| **3 kNN** |  |  |  |  |  |  |  |
| **5 kNN** |  |  |  |  |  |  |  |
| **7 kNN** |  |  |  |  |  |  |  |
| **9 kNN** |  |  |  |  |  |  |  |
| **RF 5** |  |  |  |  |  |  |  |
| **RF 10** |  |  |  |  |  |  |  |
| **RF 20** |  |  |  |  |  |  |  |
| **RF 30** |  |  |  |  |  |  |  |
| **RF 40** |  |  |  |  |  |  |  |
| **RF 50** |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Acc, testing (%)** | **Sensitivity, testing (%)** | **Specificity, testing (%)** | **PPV, testing (%)** | **F1 score, testing** | **AUC, testing** |
| **Lin SVM** |  |  |  |  |  |  |
| **Quad SVM** |  |  |  |  |  |  |
| **Cubic SVM** |  |  |  |  |  |  |
| **RBF SVM** |  |  |  |  |  |  |
| **3 kNN** |  |  |  |  |  |  |
| **5 kNN** |  |  |  |  |  |  |
| **7 kNN** |  |  |  |  |  |  |
| **9 kNN** |  |  |  |  |  |  |
| **RF 5** |  |  |  |  |  |  |
| **RF 10** |  |  |  |  |  |  |
| **RF 20** |  |  |  |  |  |  |
| **RF 30** |  |  |  |  |  |  |
| **RF 40** |  |  |  |  |  |  |
| **RF 50** |  |  |  |  |  |  |