|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **MLP** | **LR** | **SVM** | **DT** | **RF** |
| **Filter** | |  |  |  | | --- | --- | --- | |  | **+** | **-** | | **P** | **100** | **99.0** | | **R** | **98.9** | **100** | | **f1** | **98.9** | **99.5** | | |  |  |  | | --- | --- | --- | |  | **+** | **-** | | **P** | **100** | **99.0** | | **R** | **98.9** | **100** | | **f1** | **98.9** | **99.5** | | |  |  |  | | --- | --- | --- | |  | + | - | | P | 100 | 99.0 | | R | 98.9 | 100 | | f1 | 98.9 | 99.5 | | |  |  |  | | --- | --- | --- | |  | + | - | | P | 100 | 99.0 | | R | 98.9 | 100 | | f1 | 98.9 | 99.5 | | |  |  |  | | --- | --- | --- | |  | + | - | | P | 100 | 99.0 | | R | 98.9 | 100 | | f1 | 98.9 | 99.5 | |
| **Page** | |  |  |  | | --- | --- | --- | |  | + | - | | P | **100** | **85.3** | | R | **82.5** | **100** | | f1 | 90.4 | 92.1 | | |  |  |  | | --- | --- | --- | |  | + | - | | P | **100** | **85.3** | | R | **82.5** | **100** | | f1 | 90.4 | 92.1 | | |  |  |  | | --- | --- | --- | |  | + | - | | P | 40 | 50.2 | | R | 1 | 100 | | f1 | 1.95 | 66.8 | | |  |  |  | | --- | --- | --- | |  | + | - | | P | 100 | 85.3 | | R | 82.5 | 100 | | f1 | 90.4 | 92.1 | | |  |  |  | | --- | --- | --- | |  | + | - | | P | 100 | 85.3 | | R | 82.5 | 100 | | f1 | 90.4 | 92.1 | |
| **Sort** | |  |  |  | | --- | --- | --- | |  | + | - | | P | **100** | **92.3** | | R | **91.3** | **100** | | f1 | **95.4** | **95.9** | | |  |  |  | | --- | --- | --- | |  | + | - | | P | **100** | **91.9** | | R | **90.8** | **95.2** | | f1 | 95.2 | 93.5 | | |  |  |  | | --- | --- | --- | |  | + | - | | P | 98.7 | 87.3 | | R | 81.5 | 99.0 | | f1 | 89.3 | 92.7 | | |  |  |  | | --- | --- | --- | |  | + | - | | P | 100 | 87.4 | | R | 81.5 | 100 | | f1 | 89.8 | 93.3 | | |  |  |  | | --- | --- | --- | |  | + | - | | P | 100 | 87.4 | | R | 81.5 | 100 | | f1 | 89.8 | 93.3 | |
| **Search** | |  |  |  | | --- | --- | --- | |  | + | - | | P | **95.9** | **91** | | R | 90.3 | 96.1 | | f1 | 93.0 | 93.5 | | |  |  |  | | --- | --- | --- | |  | + | - | | P | **94.9** | **90.5** | | R | 89.8 | 95.1 | | f1 | 92.3 | 92.7 | | |  |  |  | | --- | --- | --- | |  | + | - | | P | 93.9 | 90.3 | | R | 89.8 | 94.2 | | f1 | 91.18 | 92.2 | | |  |  |  | | --- | --- | --- | |  | + | - | | P | 95,1 | 90.4 | | R | 89.8 | 95.1 | | f1 | 92.4 | 92.7 | | |  |  |  | | --- | --- | --- | |  | + | - | | P | 94.4 | 90.4 | | R | 89.8 | 94.6 | | f1 | 92.0 | 92.4 | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | MLP | LR | DT | SVM | RF |
| Filter | TP = 90  FP = 0  FN = 10  TN = 0  A = 90  P = 1  R = 0.9  f1 = 0.95 | TP = 90  FP = 0  FN = 10  TN = 0  A = 90  P = 1  R = 0.9  f1 = 0.95 | TP = 90  FP = 0  FN = 10  TN = 0  A = 90  P = 100  R = 0.9  f1 = 0.95 | TP = 90  FP = 0  FN = 10  TN = 0  A = 90  P = 100  R = 0.9  f1 = 0.95 | TP = 90  FP = 0  FN = 10  TN = 0  A = 90  P = 100  R = 0.9  f1 = 0.95 |
| Page | TP = 83  FP = 7  FN = 10  TN = 0  A = 83  P = 0.92  R = 0.89  f1 = 0.90 | TP = 97  FP = 0  FN = 3  TN = 0  A = 97  P = 1  R = 0.97 | TP = 83  FP = 7  FN = 10  TN = 0  A = 83  P = 0.92  R = 0.89  f1 = 0.90 | TP = 83  FP = 7  FN = 10  TN = 0  A = 83  P = 0.92  R = 0.89  f1 = 0.90 | TP = 83  FP = 7  FN = 10  TN = 0  A = 83  P = 0.92  R = 0.89  f1 = 0.90 |
| Sort | TP = 86  FP = 12  FN = 2  TN = 0  A = 86  P = 0.87  R = 0.97  f1 = 0.92 | TP = 26  FP = 70  FN = 4  TN = 0  A = 26  P = 0.27  R = 0.86  f1 = 0.41 | TP = 26  FP = 70  FN = 4  TN = 0  A = 26  P = 0.27  R = 0.86  f1 = 0.41 | TP = 26  FP = 70  FN = 4  TN = 0  A = 26  P = 0.27  R = 0.86  f1 = 0.41 | TP = 26  FP = 70  FN = 4  TN = 0  A = 26  P = 0.27  R = 0.86  f1 = 0.41 |
| Search | TP = 63  FP = 10  FN = 27  TN = 0  A = 63  P = 0.86  R = 0.7  f1 = 0.77 | TP = 87  FP = 2  FN = 11  TN = 0  A = 87  P = 0.97  R = 0.88  f1 = 0.92 | TP = 62  FP = 17  FN = 20  TN = 0  A = 62  P = 0.78  R = 0.75  f1 = 0.76 | TP = 62  FP = 16  FN = 22  TN = 0  A = 62  P = 0.79  R = 0.74  f1 = 0.76 | TP = 62  FP = 16  FN = 22  TN = 0  A = 62  P = 0.79  R = 0.74  f1 = 0.76 |