Feature Descriptor: RLBP

1. Feature Selection: CFS

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.581 | 0.557 | 0.557 | 0.555 | 0.557 | 0.557 | 0 |
| J48 binary tree | 0.689 | 0.641 | 0.641 | 0.635 | 0.642 | 0.639 | 0 |
| AODE | 0.884 | 0.786 | 0.786 | 0.787 | 0.787 | 0.786 | 0 |
| Bayes network | 0.895 | 0.802 | 0.802 | 0.802 | 0.802 | 0.802 | 0 |
| Naïve bay | 0.891 | 0.794 | 0.794 | 0.795 | 0.795 | 0.794 | 0 |
| SVM | 0.532 | 0.55 | 0.55 | 0.514 | 0.759 | 0.419 | 0.03 |
| Logistic | 0.817 | 0.718 | 0.718 | 0.721 | 0.721 | 0.717 | 0.25 |
| SMO | 0.719 | 0.718 | 0.718 | 0.721 | 0.721 | 0.717 | 0.02 |
| Muti layer | 0.845 | 0.763 | 0.763 | 0.767 | 0.767 | 0.763 | 12.01 |

1. Feature Selection: Chi-Square

K=10

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.581 | 0.573 | 0.573 | 0.57 | 0.572 | 0.572 | 0 |
| J48 binary tree | 0.574 | 0.557 | 0.557 | 0.557 | 0.558 | 0.557 | 0 |
| AODE | 0.576 | 0.565 | 0.565 | 0.565 | 0.566 | 0.565 | 0.27 |
| Bayes network | 0.592 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0 |
| Naïve bay | 0.588 | 0.542 | 0.542 | 0.541 | 0.542 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.14 |
| Logistic | 0.564 | 0.557 | 0.557 | 0.561 | 0.56 | 0.557 | 0.3 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.06 |
| Muti layer |  |  |  |  |  |  |  |

K=20

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.581 | 0.573 | 0.573 | 0.57 | 0.572 | 0.572 | 0 |
| J48 binary tree | 0.574 | 0.557 | 0.557 | 0.557 | 0.558 | 0.557 | 0 |
| AODE | 0.576 | 0.565 | 0.565 | 0.565 | 0.566 | 0.565 | 0.27 |
| Bayes network | 0.592 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0 |
| Naïve bay | 0.588 | 0.542 | 0.542 | 0.541 | 0.542 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.14 |
| Logistic | 0.564 | 0.557 | 0.557 | 0.561 | 0.56 | 0.557 | 0.3 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.06 |
| Muti layer |  |  |  |  |  |  |  |

K=30

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.581 | 0.573 | 0.573 | 0.57 | 0.572 | 0.572 | 0 |
| J48 binary tree | 0.574 | 0.557 | 0.557 | 0.557 | 0.558 | 0.557 | 0 |
| AODE | 0.576 | 0.565 | 0.565 | 0.565 | 0.566 | 0.565 | 0.27 |
| Bayes network | 0.592 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0 |
| Naïve bay | 0.588 | 0.542 | 0.542 | 0.541 | 0.542 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.14 |
| Logistic | 0.564 | 0.557 | 0.557 | 0.561 | 0.56 | 0.557 | 0.3 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.06 |
| Muti layer |  |  |  |  |  |  |  |

K=40

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.581 | 0.573 | 0.573 | 0.57 | 0.572 | 0.572 | 0 |
| J48 binary tree | 0.574 | 0.557 | 0.557 | 0.557 | 0.558 | 0.557 | 0 |
| AODE | 0.576 | 0.565 | 0.565 | 0.565 | 0.566 | 0.565 | 0.27 |
| Bayes network | 0.592 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0 |
| Naïve bay | 0.588 | 0.542 | 0.542 | 0.541 | 0.542 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.14 |
| Logistic | 0.564 | 0.557 | 0.557 | 0.561 | 0.56 | 0.557 | 0.3 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.06 |
| Muti layer |  |  |  |  |  |  |  |

K=50

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.581 | 0.573 | 0.573 | 0.57 | 0.572 | 0.572 | 0 |
| J48 binary tree | 0.574 | 0.557 | 0.557 | 0.557 | 0.558 | 0.557 | 0 |
| AODE | 0.576 | 0.565 | 0.565 | 0.565 | 0.566 | 0.565 | 0.27 |
| Bayes network | 0.592 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0 |
| Naïve bay | 0.588 | 0.542 | 0.542 | 0.541 | 0.542 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.14 |
| Logistic | 0.564 | 0.557 | 0.557 | 0.561 | 0.56 | 0.557 | 0.3 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.06 |
| Muti layer |  |  |  |  |  |  |  |

K=60

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.581 | 0.573 | 0.573 | 0.57 | 0.572 | 0.572 | 0 |
| J48 binary tree | 0.574 | 0.557 | 0.557 | 0.557 | 0.558 | 0.557 | 0 |
| AODE | 0.576 | 0.565 | 0.565 | 0.565 | 0.566 | 0.565 | 0.27 |
| Bayes network | 0.592 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0 |
| Naïve bay | 0.588 | 0.542 | 0.542 | 0.541 | 0.542 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.14 |
| Logistic | 0.564 | 0.557 | 0.557 | 0.561 | 0.56 | 0.557 | 0.3 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.06 |
| Muti layer |  |  |  |  |  |  |  |

1. Feature Selection: Gain Ratio

K=10

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.531 | 0.542 | 0.542 | 0.539 | 0.541 | 0.542 | 0 |
| J48 binary tree | 0.573 | 0.542 | 0.542 | 0.543 | 0.543 | 0.542 | 0 |
| AODE | 0.576 | 0.565 | 0.565 | 0.565 | 0.565 | 0.565 | 0.15 |
| Bayes network | 0.592 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0 |
| Naïve bay | 0.588 | 0.542 | 0.542 | 0.541 | 0.542 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.23 |
| Logistic | 0.564 | 0.557 | 0.557 | 0.561 | 0.56 | 0.557 | 0.28 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.09 |
| Muti layer |  |  |  |  |  |  |  |

K=20

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.531 | 0.542 | 0.542 | 0.539 | 0.541 | 0.542 | 0 |
| J48 binary tree | 0.573 | 0.542 | 0.542 | 0.543 | 0.543 | 0.542 | 0 |
| AODE | 0.576 | 0.565 | 0.565 | 0.565 | 0.565 | 0.565 | 0.15 |
| Bayes network | 0.592 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0 |
| Naïve bay | 0.588 | 0.542 | 0.542 | 0.541 | 0.542 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.23 |
| Logistic | 0.564 | 0.557 | 0.557 | 0.561 | 0.56 | 0.557 | 0.28 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.09 |
| Muti layer |  |  |  |  |  |  |  |

K=30

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.531 | 0.542 | 0.542 | 0.539 | 0.541 | 0.542 | 0 |
| J48 binary tree | 0.573 | 0.542 | 0.542 | 0.543 | 0.543 | 0.542 | 0 |
| AODE | 0.576 | 0.565 | 0.565 | 0.565 | 0.565 | 0.565 | 0.15 |
| Bayes network | 0.592 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0 |
| Naïve bay | 0.588 | 0.542 | 0.542 | 0.541 | 0.542 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.23 |
| Logistic | 0.564 | 0.557 | 0.557 | 0.561 | 0.56 | 0.557 | 0.28 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.09 |
| Muti layer |  |  |  |  |  |  |  |

K=40

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.531 | 0.542 | 0.542 | 0.539 | 0.541 | 0.542 | 0 |
| J48 binary tree | 0.573 | 0.542 | 0.542 | 0.543 | 0.543 | 0.542 | 0 |
| AODE | 0.576 | 0.565 | 0.565 | 0.565 | 0.565 | 0.565 | 0.15 |
| Bayes network | 0.592 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0 |
| Naïve bay | 0.588 | 0.542 | 0.542 | 0.541 | 0.542 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.23 |
| Logistic | 0.564 | 0.557 | 0.557 | 0.561 | 0.56 | 0.557 | 0.28 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.09 |
| Muti layer |  |  |  |  |  |  |  |

K=50

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.531 | 0.542 | 0.542 | 0.539 | 0.541 | 0.542 | 0 |
| J48 binary tree | 0.573 | 0.542 | 0.542 | 0.543 | 0.543 | 0.542 | 0 |
| AODE | 0.576 | 0.565 | 0.565 | 0.565 | 0.565 | 0.565 | 0.15 |
| Bayes network | 0.592 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0 |
| Naïve bay | 0.588 | 0.542 | 0.542 | 0.541 | 0.542 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.23 |
| Logistic | 0.564 | 0.557 | 0.557 | 0.561 | 0.56 | 0.557 | 0.28 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.09 |
| Muti layer |  |  |  |  |  |  |  |

K=60

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.531 | 0.542 | 0.542 | 0.539 | 0.541 | 0.542 | 0 |
| J48 binary tree | 0.573 | 0.542 | 0.542 | 0.543 | 0.543 | 0.542 | 0 |
| AODE | 0.576 | 0.565 | 0.565 | 0.565 | 0.565 | 0.565 | 0.15 |
| Bayes network | 0.592 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0 |
| Naïve bay | 0.588 | 0.542 | 0.542 | 0.541 | 0.542 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.23 |
| Logistic | 0.564 | 0.557 | 0.557 | 0.561 | 0.56 | 0.557 | 0.28 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.09 |
| Muti layer |  |  |  |  |  |  |  |

1. Feature Selection: Information Gain

K=10

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.581 | 0.573 | 0.573 | 0.57 | 0.572 | 0.572 | 0 |
| J48 binary tree | 0.567 | 0.542 | 0.542 | 0.543 | 0.543 | 0.542 | 0 |
| AODE | 0.576 | 0.565 | 0.565 | 0.565 | 0.566 | 0.565 | 0.17 |
| Bayes network | 0.592 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0 |
| Naïve bay | 0.588 | 0.542 | 0.542 | 0.541 | 0.542 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.14 |
| Logistic | 0.564 | 0.557 | 0.557 | 0.561 | 0.56 | 0.557 | 0.52 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.06 |
| Muti layer |  |  |  |  |  |  |  |

K=20

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.581 | 0.573 | 0.573 | 0.57 | 0.572 | 0.572 | 0 |
| J48 binary tree | 0.567 | 0.542 | 0.542 | 0.543 | 0.543 | 0.542 | 0 |
| AODE | 0.576 | 0.565 | 0.565 | 0.565 | 0.566 | 0.565 | 0.17 |
| Bayes network | 0.592 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0 |
| Naïve bay | 0.588 | 0.542 | 0.542 | 0.541 | 0.542 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.14 |
| Logistic | 0.564 | 0.557 | 0.557 | 0.561 | 0.56 | 0.557 | 0.52 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.06 |
| Muti layer |  |  |  |  |  |  |  |

K=30

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.581 | 0.573 | 0.573 | 0.57 | 0.572 | 0.572 | 0 |
| J48 binary tree | 0.567 | 0.542 | 0.542 | 0.543 | 0.543 | 0.542 | 0 |
| AODE | 0.576 | 0.565 | 0.565 | 0.565 | 0.566 | 0.565 | 0.17 |
| Bayes network | 0.592 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0 |
| Naïve bay | 0.588 | 0.542 | 0.542 | 0.541 | 0.542 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.14 |
| Logistic | 0.564 | 0.557 | 0.557 | 0.561 | 0.56 | 0.557 | 0.52 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.06 |
| Muti layer |  |  |  |  |  |  |  |

K=40

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.581 | 0.573 | 0.573 | 0.57 | 0.572 | 0.572 | 0 |
| J48 binary tree | 0.567 | 0.542 | 0.542 | 0.543 | 0.543 | 0.542 | 0 |
| AODE | 0.576 | 0.565 | 0.565 | 0.565 | 0.566 | 0.565 | 0.17 |
| Bayes network | 0.592 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0 |
| Naïve bay | 0.588 | 0.542 | 0.542 | 0.541 | 0.542 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.14 |
| Logistic | 0.564 | 0.557 | 0.557 | 0.561 | 0.56 | 0.557 | 0.52 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.06 |
| Muti layer |  |  |  |  |  |  |  |

K=50

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.581 | 0.573 | 0.573 | 0.57 | 0.572 | 0.572 | 0 |
| J48 binary tree | 0.567 | 0.542 | 0.542 | 0.543 | 0.543 | 0.542 | 0 |
| AODE | 0.576 | 0.565 | 0.565 | 0.565 | 0.566 | 0.565 | 0.17 |
| Bayes network | 0.592 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0 |
| Naïve bay | 0.588 | 0.542 | 0.542 | 0.541 | 0.542 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.14 |
| Logistic | 0.564 | 0.557 | 0.557 | 0.561 | 0.56 | 0.557 | 0.52 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.06 |
| Muti layer |  |  |  |  |  |  |  |

K=60

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.581 | 0.573 | 0.573 | 0.57 | 0.572 | 0.572 | 0 |
| J48 binary tree | 0.567 | 0.542 | 0.542 | 0.543 | 0.543 | 0.542 | 0 |
| AODE | 0.576 | 0.565 | 0.565 | 0.565 | 0.566 | 0.565 | 0.17 |
| Bayes network | 0.592 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0 |
| Naïve bay | 0.588 | 0.542 | 0.542 | 0.541 | 0.542 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.14 |
| Logistic | 0.564 | 0.557 | 0.557 | 0.561 | 0.56 | 0.557 | 0.52 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.06 |
| Muti layer |  |  |  |  |  |  |  |

1. Feature Selection: Relief

K=10

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.565 | 0.542 | 0.542 | 0.541 | 0.542 | 0.542 | 0 |
| J48 binary tree | 0.544 | 0.519 | 0.519 | 0.519 | 0.52 | 0.519 | 0 |
| AODE | 0.576 | 0.565 | 0.565 | 0.565 | 0.566 | 0.565 | 0.17 |
| Bayes network | 0.592 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0 |
| Naïve bay | 0.588 | 0.542 | 0.542 | 0.541 | 0.542 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.14 |
| Logistic | 0.564 | 0.557 | 0.557 | 0.561 | 0.56 | 0.557 | 0.52 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.06 |
| Muti layer |  |  |  |  |  |  |  |

K=20

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.565 | 0.542 | 0.542 | 0.541 | 0.542 | 0.542 | 0 |
| J48 binary tree | 0.544 | 0.519 | 0.519 | 0.519 | 0.52 | 0.519 | 0 |
| AODE | 0.576 | 0.565 | 0.565 | 0.565 | 0.566 | 0.565 | 0.17 |
| Bayes network | 0.592 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0 |
| Naïve bay | 0.588 | 0.542 | 0.542 | 0.541 | 0.542 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.14 |
| Logistic | 0.564 | 0.557 | 0.557 | 0.561 | 0.56 | 0.557 | 0.52 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.06 |
| Muti layer |  |  |  |  |  |  |  |

K=30

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.565 | 0.542 | 0.542 | 0.541 | 0.542 | 0.542 | 0 |
| J48 binary tree | 0.544 | 0.519 | 0.519 | 0.519 | 0.52 | 0.519 | 0 |
| AODE | 0.576 | 0.565 | 0.565 | 0.565 | 0.566 | 0.565 | 0.17 |
| Bayes network | 0.592 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0 |
| Naïve bay | 0.588 | 0.542 | 0.542 | 0.541 | 0.542 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.14 |
| Logistic | 0.564 | 0.557 | 0.557 | 0.561 | 0.56 | 0.557 | 0.52 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.06 |
| Muti layer |  |  |  |  |  |  |  |

K=40

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.565 | 0.542 | 0.542 | 0.541 | 0.542 | 0.542 | 0 |
| J48 binary tree | 0.544 | 0.519 | 0.519 | 0.519 | 0.52 | 0.519 | 0 |
| AODE | 0.576 | 0.565 | 0.565 | 0.565 | 0.566 | 0.565 | 0.17 |
| Bayes network | 0.592 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0 |
| Naïve bay | 0.588 | 0.542 | 0.542 | 0.541 | 0.542 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.14 |
| Logistic | 0.564 | 0.557 | 0.557 | 0.561 | 0.56 | 0.557 | 0.52 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.06 |
| Muti layer |  |  |  |  |  |  |  |

K=50

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.565 | 0.542 | 0.542 | 0.541 | 0.542 | 0.542 | 0 |
| J48 binary tree | 0.544 | 0.519 | 0.519 | 0.519 | 0.52 | 0.519 | 0 |
| AODE | 0.576 | 0.565 | 0.565 | 0.565 | 0.566 | 0.565 | 0.17 |
| Bayes network | 0.592 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0 |
| Naïve bay | 0.588 | 0.542 | 0.542 | 0.541 | 0.542 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.14 |
| Logistic | 0.564 | 0.557 | 0.557 | 0.561 | 0.56 | 0.557 | 0.52 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.06 |
| Muti layer |  |  |  |  |  |  |  |

K=60

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.565 | 0.542 | 0.542 | 0.541 | 0.542 | 0.542 | 0 |
| J48 binary tree | 0.544 | 0.519 | 0.519 | 0.519 | 0.52 | 0.519 | 0 |
| AODE | 0.576 | 0.565 | 0.565 | 0.565 | 0.566 | 0.565 | 0.17 |
| Bayes network | 0.592 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0 |
| Naïve bay | 0.588 | 0.542 | 0.542 | 0.541 | 0.542 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.14 |
| Logistic | 0.564 | 0.557 | 0.557 | 0.561 | 0.56 | 0.557 | 0.52 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.06 |
| Muti layer |  |  |  |  |  |  |  |