Feature Descriptor: Gabor

1. Feature Selection: CFS

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.605 | 0.603 | 0.603 | 0.604 | 0.604 | 0.603 | 0 |
| J48 binary tree | 0.697 | 0.634 | 0.634 | 0.635 | 0.635 | 0.634 | 0 |
| AODE | 0.834 | 0.763 | 0.763 | 0.766 | 0.766 | 0.763 | 0 |
| Bayes network | 0.883 | 0.779 | 0.779 | 0.777 | 0.779 | 0.779 | 0 |
| Naïve bay | 0.878 | 0.763 | 0.763 | 0.763 | 0.764 | 0.763 | 0 |
| SVM | 0.532 | 0.55 | 0.55 | 0.514 | 0.759 | 0.419 | 0 |
| Logistic | 0.85 | 0.771 | 0.771 | 0.77 | 0.771 | 0.771 | 0 |
| SMO | 0.74 | 0.74 | 0.74 | 0.74 | 0.74 | 0.74 | 0.05 |
| Muti layer | 0.828 | 0.771 | 0.771 | 0.774 | 0.774 | 0.771 | 8.63 |

1. Feature Selection: Chi-Square

K=10

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.514 | 0.489 | 0.489 | 0.49 | 0.49 | 0.489 | 0 |
| J48 binary tree | 0.467 | 0.466 | 0.466 | 0.466 | 0.467 | 0.466 | 0 |
| AODE | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.14 |
| Bayes network | 0.662 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| Naïve bay | 0.657 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.681 | 0.649 | 0.649 | 0.65 | 0.65 | 0.649 | 0.82 |
| SMO | 0.578 | 0.58 | 0.58 | 0.576 | 0.579 | 0.579 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=20

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.514 | 0.489 | 0.489 | 0.49 | 0.49 | 0.489 | 0 |
| J48 binary tree | 0.467 | 0.466 | 0.466 | 0.466 | 0.467 | 0.466 | 0 |
| AODE | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.14 |
| Bayes network | 0.662 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| Naïve bay | 0.657 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.681 | 0.649 | 0.649 | 0.65 | 0.65 | 0.649 | 0.82 |
| SMO | 0.578 | 0.58 | 0.58 | 0.576 | 0.579 | 0.579 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=30

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.514 | 0.489 | 0.489 | 0.49 | 0.49 | 0.489 | 0 |
| J48 binary tree | 0.467 | 0.466 | 0.466 | 0.466 | 0.467 | 0.466 | 0 |
| AODE | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.14 |
| Bayes network | 0.662 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| Naïve bay | 0.657 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.681 | 0.649 | 0.649 | 0.65 | 0.65 | 0.649 | 0.82 |
| SMO | 0.578 | 0.58 | 0.58 | 0.576 | 0.579 | 0.579 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=40

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.514 | 0.489 | 0.489 | 0.49 | 0.49 | 0.489 | 0 |
| J48 binary tree | 0.467 | 0.466 | 0.466 | 0.466 | 0.467 | 0.466 | 0 |
| AODE | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.14 |
| Bayes network | 0.662 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| Naïve bay | 0.657 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.681 | 0.649 | 0.649 | 0.65 | 0.65 | 0.649 | 0.82 |
| SMO | 0.578 | 0.58 | 0.58 | 0.576 | 0.579 | 0.579 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=50

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.514 | 0.489 | 0.489 | 0.49 | 0.49 | 0.489 | 0 |
| J48 binary tree | 0.467 | 0.466 | 0.466 | 0.466 | 0.467 | 0.466 | 0 |
| AODE | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.14 |
| Bayes network | 0.662 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| Naïve bay | 0.657 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.681 | 0.649 | 0.649 | 0.65 | 0.65 | 0.649 | 0.82 |
| SMO | 0.578 | 0.58 | 0.58 | 0.576 | 0.579 | 0.579 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=60

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.514 | 0.489 | 0.489 | 0.49 | 0.49 | 0.489 | 0 |
| J48 binary tree | 0.467 | 0.466 | 0.466 | 0.466 | 0.467 | 0.466 | 0 |
| AODE | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.14 |
| Bayes network | 0.662 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| Naïve bay | 0.657 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.681 | 0.649 | 0.649 | 0.65 | 0.65 | 0.649 | 0.82 |
| SMO | 0.578 | 0.58 | 0.58 | 0.576 | 0.579 | 0.579 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

1. Feature Selection: Gain Ratio

K=10

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.514 | 0.489 | 0.489 | 0.49 | 0.49 | 0.489 | 0 |
| J48 binary tree | 0.56 | 0.519 | 0.519 | 0.519 | 0.52 | 0.519 | 0 |
| AODE | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.14 |
| Bayes network | 0.662 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| Naïve bay | 0.657 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.681 | 0.649 | 0.649 | 0.65 | 0.65 | 0.649 | 0.82 |
| SMO | 0.578 | 0.58 | 0.58 | 0.576 | 0.579 | 0.579 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=20

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.514 | 0.489 | 0.489 | 0.49 | 0.49 | 0.489 | 0 |
| J48 binary tree | 0.56 | 0.519 | 0.519 | 0.519 | 0.52 | 0.519 | 0 |
| AODE | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.14 |
| Bayes network | 0.662 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| Naïve bay | 0.657 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.681 | 0.649 | 0.649 | 0.65 | 0.65 | 0.649 | 0.82 |
| SMO | 0.578 | 0.58 | 0.58 | 0.576 | 0.579 | 0.579 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=30

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.514 | 0.489 | 0.489 | 0.49 | 0.49 | 0.489 | 0 |
| J48 binary tree | 0.56 | 0.519 | 0.519 | 0.519 | 0.52 | 0.519 | 0 |
| AODE | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.14 |
| Bayes network | 0.662 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| Naïve bay | 0.657 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.681 | 0.649 | 0.649 | 0.65 | 0.65 | 0.649 | 0.82 |
| SMO | 0.578 | 0.58 | 0.58 | 0.576 | 0.579 | 0.579 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=40

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.514 | 0.489 | 0.489 | 0.49 | 0.49 | 0.489 | 0 |
| J48 binary tree | 0.56 | 0.519 | 0.519 | 0.519 | 0.52 | 0.519 | 0 |
| AODE | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.14 |
| Bayes network | 0.662 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| Naïve bay | 0.657 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.681 | 0.649 | 0.649 | 0.65 | 0.65 | 0.649 | 0.82 |
| SMO | 0.578 | 0.58 | 0.58 | 0.576 | 0.579 | 0.579 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=50

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.514 | 0.489 | 0.489 | 0.49 | 0.49 | 0.489 | 0 |
| J48 binary tree | 0.56 | 0.519 | 0.519 | 0.519 | 0.52 | 0.519 | 0 |
| AODE | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.14 |
| Bayes network | 0.662 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| Naïve bay | 0.657 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.681 | 0.649 | 0.649 | 0.65 | 0.65 | 0.649 | 0.82 |
| SMO | 0.578 | 0.58 | 0.58 | 0.576 | 0.579 | 0.579 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=60

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.514 | 0.489 | 0.489 | 0.49 | 0.49 | 0.489 | 0 |
| J48 binary tree | 0.56 | 0.519 | 0.519 | 0.519 | 0.52 | 0.519 | 0 |
| AODE | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.14 |
| Bayes network | 0.662 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| Naïve bay | 0.657 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.681 | 0.649 | 0.649 | 0.65 | 0.65 | 0.649 | 0.95 |
| SMO | 0.578 | 0.58 | 0.58 | 0.576 | 0.579 | 0.579 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

1. Feature Selection: Information Gain

K=10

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.514 | 0.489 | 0.489 | 0.49 | 0.49 | 0.489 | 0 |
| J48 binary tree | 0.448 | 0.45 | 0.45 | 0.453 | 0.452 | 0.45 | 0 |
| AODE | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.14 |
| Bayes network | 0.662 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| Naïve bay | 0.657 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.681 | 0.649 | 0.649 | 0.65 | 0.65 | 0.649 | 0.76 |
| SMO | 0.578 | 0.58 | 0.58 | 0.576 | 0.579 | 0.579 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=20

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.514 | 0.489 | 0.489 | 0.49 | 0.49 | 0.489 | 0 |
| J48 binary tree | 0.448 | 0.45 | 0.45 | 0.453 | 0.452 | 0.45 | 0 |
| AODE | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.14 |
| Bayes network | 0.662 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| Naïve bay | 0.657 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.681 | 0.649 | 0.649 | 0.65 | 0.65 | 0.649 | 0.76 |
| SMO | 0.578 | 0.58 | 0.58 | 0.576 | 0.579 | 0.579 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=30

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.514 | 0.489 | 0.489 | 0.49 | 0.49 | 0.489 | 0 |
| J48 binary tree | 0.448 | 0.45 | 0.45 | 0.453 | 0.452 | 0.45 | 0 |
| AODE | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.14 |
| Bayes network | 0.662 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| Naïve bay | 0.657 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.681 | 0.649 | 0.649 | 0.65 | 0.65 | 0.649 | 0.76 |
| SMO | 0.578 | 0.58 | 0.58 | 0.576 | 0.579 | 0.579 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=40

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.514 | 0.489 | 0.489 | 0.49 | 0.49 | 0.489 | 0 |
| J48 binary tree | 0.448 | 0.45 | 0.45 | 0.453 | 0.452 | 0.45 | 0 |
| AODE | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.14 |
| Bayes network | 0.662 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| Naïve bay | 0.657 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.681 | 0.649 | 0.649 | 0.65 | 0.65 | 0.649 | 0.76 |
| SMO | 0.578 | 0.58 | 0.58 | 0.576 | 0.579 | 0.579 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=50

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.514 | 0.489 | 0.489 | 0.49 | 0.49 | 0.489 | 0 |
| J48 binary tree | 0.448 | 0.45 | 0.45 | 0.453 | 0.452 | 0.45 | 0 |
| AODE | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.14 |
| Bayes network | 0.662 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| Naïve bay | 0.657 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.681 | 0.649 | 0.649 | 0.65 | 0.65 | 0.649 | 0.76 |
| SMO | 0.578 | 0.58 | 0.58 | 0.576 | 0.579 | 0.579 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=60

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.514 | 0.489 | 0.489 | 0.49 | 0.49 | 0.489 | 0 |
| J48 binary tree | 0.448 | 0.45 | 0.45 | 0.453 | 0.452 | 0.45 | 0 |
| AODE | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.14 |
| Bayes network | 0.662 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| Naïve bay | 0.657 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.681 | 0.649 | 0.649 | 0.65 | 0.65 | 0.649 | 0.76 |
| SMO | 0.578 | 0.58 | 0.58 | 0.576 | 0.579 | 0.579 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

1. Feature Selection: Relief

K=10

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.518 | 0.481 | 0.481 | 0.482 | 0.482 | 0.481 | 0 |
| J48 binary tree | 0.536 | 0.473 | 0.473 | 0.477 | 0.476 | 0.472 | 0 |
| AODE | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.14 |
| Bayes network | 0.662 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| Naïve bay | 0.657 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.681 | 0.649 | 0.649 | 0.65 | 0.65 | 0.649 | 0.84 |
| SMO | 0.578 | 0.58 | 0.58 | 0.576 | 0.579 | 0.579 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=20

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.518 | 0.481 | 0.481 | 0.482 | 0.482 | 0.481 | 0 |
| J48 binary tree | 0.536 | 0.473 | 0.473 | 0.477 | 0.476 | 0.472 | 0 |
| AODE | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.14 |
| Bayes network | 0.662 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| Naïve bay | 0.657 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.681 | 0.649 | 0.649 | 0.65 | 0.65 | 0.649 | 0.84 |
| SMO | 0.578 | 0.58 | 0.58 | 0.576 | 0.579 | 0.579 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=30

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.518 | 0.481 | 0.481 | 0.482 | 0.482 | 0.481 | 0 |
| J48 binary tree | 0.536 | 0.473 | 0.473 | 0.477 | 0.476 | 0.472 | 0 |
| AODE | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.14 |
| Bayes network | 0.662 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| Naïve bay | 0.657 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.681 | 0.649 | 0.649 | 0.65 | 0.65 | 0.649 | 0.84 |
| SMO | 0.578 | 0.58 | 0.58 | 0.576 | 0.579 | 0.579 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=40

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.518 | 0.481 | 0.481 | 0.482 | 0.482 | 0.481 | 0 |
| J48 binary tree | 0.536 | 0.473 | 0.473 | 0.477 | 0.476 | 0.472 | 0 |
| AODE | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.14 |
| Bayes network | 0.662 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| Naïve bay | 0.657 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.681 | 0.649 | 0.649 | 0.65 | 0.65 | 0.649 | 0.84 |
| SMO | 0.578 | 0.58 | 0.58 | 0.576 | 0.579 | 0.579 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=50

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.518 | 0.481 | 0.481 | 0.482 | 0.482 | 0.481 | 0 |
| J48 binary tree | 0.536 | 0.473 | 0.473 | 0.477 | 0.476 | 0.472 | 0 |
| AODE | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.14 |
| Bayes network | 0.662 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| Naïve bay | 0.657 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.681 | 0.649 | 0.649 | 0.65 | 0.65 | 0.649 | 0.84 |
| SMO | 0.578 | 0.58 | 0.58 | 0.576 | 0.579 | 0.579 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=60

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.518 | 0.481 | 0.481 | 0.482 | 0.482 | 0.481 | 0 |
| J48 binary tree | 0.536 | 0.473 | 0.473 | 0.477 | 0.476 | 0.472 | 0 |
| AODE | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.14 |
| Bayes network | 0.662 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| Naïve bay | 0.657 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.681 | 0.649 | 0.649 | 0.65 | 0.65 | 0.649 | 0.84 |
| SMO | 0.578 | 0.58 | 0.58 | 0.576 | 0.579 | 0.579 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |