Feature Descriptor: LTP

1. Feature Selection: CFS

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.569 | 0.511 | 0.511 | 0.51 | 0.511 | 0.511 | 0 |
| J48 binary tree | 0.65 | 0.618 | 0.618 | 0.623 | 0.623 | 0.617 | 0 |
| AODE | 0.738 | 0.656 | 0.656 | 0.654 | 0.656 | 0.656 | 0 |
| Bayes network | 0.764 | 0.672 | 0.672 | 0.669 | 0.672 | 0.671 | 0 |
| Naïve bay | 0.758 | 0.679 | 0.679 | 0.676 | 0.679 | 0.679 | 0 |
| SVM | 0.561 | 0.573 | 0.573 | 0.549 | 0.597 | 0.527 | 0 |
| Logistic | 0.604 | 0.565 | 0.565 | 0.564 | 0.565 | 0.565 | 0.03 |
| SMO | 0.686 | 0.687 | 0.687 | 0.684 | 0.687 | 0.687 | 0.03 |
| Muti layer | 0.682 | 0.656 | 0.656 | 0.656 | 0.657 | 0.657 | 3.07 |

1. Feature Selection: Chi-Square

K=10

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.449 | 0.443 | 0.443 | 0.438 | 0.441 | 0.441 | 0 |
| J48 binary tree | 0.546 | 0.504 | 0.504 | 0.508 | 0.507 | 0.503 | 0 |
| AODE | 0.473 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0 |
| Bayes network | 0.513 | 0.504 | 0.503 | 0.505 | 0.505 | 0.504 | 0 |
| Naïve bay | 0.504 | 0.504 | 0.504 | 0.506 | 0.506 | 0.503 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.496 | 0.496 | 0.496 | 0.495 | 0.496 | 0.496 | 1.17 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=20

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.449 | 0.443 | 0.443 | 0.438 | 0.441 | 0.441 | 0 |
| J48 binary tree | 0.546 | 0.504 | 0.504 | 0.508 | 0.507 | 0.503 | 0 |
| AODE | 0.473 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0 |
| Bayes network | 0.513 | 0.504 | 0.503 | 0.505 | 0.505 | 0.504 | 0 |
| Naïve bay | 0.504 | 0.504 | 0.504 | 0.506 | 0.506 | 0.503 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.496 | 0.496 | 0.496 | 0.495 | 0.496 | 0.496 | 1.17 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=30

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.449 | 0.443 | 0.443 | 0.438 | 0.441 | 0.441 | 0 |
| J48 binary tree | 0.546 | 0.504 | 0.504 | 0.508 | 0.507 | 0.503 | 0 |
| AODE | 0.473 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0 |
| Bayes network | 0.513 | 0.504 | 0.503 | 0.505 | 0.505 | 0.504 | 0 |
| Naïve bay | 0.504 | 0.504 | 0.504 | 0.506 | 0.506 | 0.503 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.496 | 0.496 | 0.496 | 0.495 | 0.496 | 0.496 | 1.17 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=40

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.449 | 0.443 | 0.443 | 0.438 | 0.441 | 0.441 | 0 |
| J48 binary tree | 0.546 | 0.504 | 0.504 | 0.508 | 0.507 | 0.503 | 0 |
| AODE | 0.473 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0 |
| Bayes network | 0.513 | 0.504 | 0.503 | 0.505 | 0.505 | 0.504 | 0 |
| Naïve bay | 0.504 | 0.504 | 0.504 | 0.506 | 0.506 | 0.503 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.496 | 0.496 | 0.496 | 0.495 | 0.496 | 0.496 | 1.17 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=50

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.449 | 0.443 | 0.443 | 0.438 | 0.441 | 0.441 | 0 |
| J48 binary tree | 0.546 | 0.504 | 0.504 | 0.508 | 0.507 | 0.503 | 0 |
| AODE | 0.473 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0 |
| Bayes network | 0.513 | 0.504 | 0.503 | 0.505 | 0.505 | 0.504 | 0 |
| Naïve bay | 0.504 | 0.504 | 0.504 | 0.506 | 0.506 | 0.503 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.496 | 0.496 | 0.496 | 0.495 | 0.496 | 0.496 | 1.17 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=60

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.449 | 0.443 | 0.443 | 0.438 | 0.441 | 0.441 | 0 |
| J48 binary tree | 0.546 | 0.504 | 0.504 | 0.508 | 0.507 | 0.503 | 0 |
| AODE | 0.473 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0 |
| Bayes network | 0.513 | 0.504 | 0.503 | 0.505 | 0.505 | 0.504 | 0 |
| Naïve bay | 0.504 | 0.504 | 0.504 | 0.506 | 0.506 | 0.503 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.496 | 0.496 | 0.496 | 0.495 | 0.496 | 0.496 | 1.04 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

1. Feature Selection: Gain Ratio

K=10

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.449 | 0.443 | 0.443 | 0.438 | 0.441 | 0.441 | 0 |
| J48 binary tree | 0.561 | 0.519 | 0.519 | 0.524 | 0.523 | 0.517 | 0 |
| AODE | 0.473 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0 |
| Bayes network | 0.513 | 0.504 | 0.503 | 0.505 | 0.505 | 0.504 | 0 |
| Naïve bay | 0.504 | 0.504 | 0.504 | 0.506 | 0.506 | 0.503 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.496 | 0.496 | 0.496 | 0.495 | 0.496 | 0.496 | 1.2 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=20

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.449 | 0.443 | 0.443 | 0.438 | 0.441 | 0.441 | 0 |
| J48 binary tree | 0.561 | 0.519 | 0.519 | 0.524 | 0.523 | 0.517 | 0 |
| AODE | 0.473 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0 |
| Bayes network | 0.513 | 0.504 | 0.503 | 0.505 | 0.505 | 0.504 | 0 |
| Naïve bay | 0.504 | 0.504 | 0.504 | 0.506 | 0.506 | 0.503 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.496 | 0.496 | 0.496 | 0.495 | 0.496 | 0.496 | 1.2 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=30

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.449 | 0.443 | 0.443 | 0.438 | 0.441 | 0.441 | 0 |
| J48 binary tree | 0.561 | 0.519 | 0.519 | 0.524 | 0.523 | 0.517 | 0 |
| AODE | 0.473 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0 |
| Bayes network | 0.513 | 0.504 | 0.503 | 0.505 | 0.505 | 0.504 | 0 |
| Naïve bay | 0.504 | 0.504 | 0.504 | 0.506 | 0.506 | 0.503 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.496 | 0.496 | 0.496 | 0.495 | 0.496 | 0.496 | 1.2 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=40

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.449 | 0.443 | 0.443 | 0.438 | 0.441 | 0.441 | 0 |
| J48 binary tree | 0.561 | 0.519 | 0.519 | 0.524 | 0.523 | 0.517 | 0 |
| AODE | 0.473 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0 |
| Bayes network | 0.513 | 0.504 | 0.503 | 0.505 | 0.505 | 0.504 | 0 |
| Naïve bay | 0.504 | 0.504 | 0.504 | 0.506 | 0.506 | 0.503 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.496 | 0.496 | 0.496 | 0.495 | 0.496 | 0.496 | 1.2 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=50

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.449 | 0.443 | 0.443 | 0.438 | 0.441 | 0.441 | 0 |
| J48 binary tree | 0.561 | 0.519 | 0.519 | 0.524 | 0.523 | 0.517 | 0 |
| AODE | 0.473 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0 |
| Bayes network | 0.513 | 0.504 | 0.503 | 0.505 | 0.505 | 0.504 | 0 |
| Naïve bay | 0.504 | 0.504 | 0.504 | 0.506 | 0.506 | 0.503 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.496 | 0.496 | 0.496 | 0.495 | 0.496 | 0.496 | 1.2 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=60

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.449 | 0.443 | 0.443 | 0.438 | 0.441 | 0.441 | 0 |
| J48 binary tree | 0.561 | 0.519 | 0.519 | 0.524 | 0.523 | 0.517 | 0 |
| AODE | 0.473 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0 |
| Bayes network | 0.513 | 0.504 | 0.503 | 0.505 | 0.505 | 0.504 | 0 |
| Naïve bay | 0.504 | 0.504 | 0.504 | 0.506 | 0.506 | 0.503 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.496 | 0.496 | 0.496 | 0.495 | 0.496 | 0.496 | 1.2 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

1. Feature Selection: Information Gain

K=10

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.449 | 0.443 | 0.443 | 0.438 | 0.441 | 0.441 | 0 |
| J48 binary tree | 0.561 | 0.519 | 0.519 | 0.524 | 0.523 | 0.517 | 0 |
| AODE | 0.473 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0 |
| Bayes network | 0.513 | 0.504 | 0.503 | 0.505 | 0.505 | 0.504 | 0 |
| Naïve bay | 0.504 | 0.504 | 0.504 | 0.506 | 0.506 | 0.503 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.496 | 0.496 | 0.496 | 0.495 | 0.496 | 0.496 | 1.38 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=20

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.449 | 0.443 | 0.443 | 0.438 | 0.441 | 0.441 | 0 |
| J48 binary tree | 0.561 | 0.519 | 0.519 | 0.524 | 0.523 | 0.517 | 0 |
| AODE | 0.473 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0 |
| Bayes network | 0.513 | 0.504 | 0.503 | 0.505 | 0.505 | 0.504 | 0 |
| Naïve bay | 0.504 | 0.504 | 0.504 | 0.506 | 0.506 | 0.503 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.496 | 0.496 | 0.496 | 0.495 | 0.496 | 0.496 | 1.38 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=30

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.449 | 0.443 | 0.443 | 0.438 | 0.441 | 0.441 | 0 |
| J48 binary tree | 0.561 | 0.519 | 0.519 | 0.524 | 0.523 | 0.517 | 0 |
| AODE | 0.473 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0 |
| Bayes network | 0.513 | 0.504 | 0.503 | 0.505 | 0.505 | 0.504 | 0 |
| Naïve bay | 0.504 | 0.504 | 0.504 | 0.506 | 0.506 | 0.503 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.496 | 0.496 | 0.496 | 0.495 | 0.496 | 0.496 | 1.38 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=40

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.449 | 0.443 | 0.443 | 0.438 | 0.441 | 0.441 | 0 |
| J48 binary tree | 0.561 | 0.519 | 0.519 | 0.524 | 0.523 | 0.517 | 0 |
| AODE | 0.473 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0 |
| Bayes network | 0.513 | 0.504 | 0.503 | 0.505 | 0.505 | 0.504 | 0 |
| Naïve bay | 0.504 | 0.504 | 0.504 | 0.506 | 0.506 | 0.503 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.496 | 0.496 | 0.496 | 0.495 | 0.496 | 0.496 | 1.38 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=50

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.449 | 0.443 | 0.443 | 0.438 | 0.441 | 0.441 | 0 |
| J48 binary tree | 0.561 | 0.519 | 0.519 | 0.524 | 0.523 | 0.517 | 0 |
| AODE | 0.473 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0 |
| Bayes network | 0.513 | 0.504 | 0.503 | 0.505 | 0.505 | 0.504 | 0 |
| Naïve bay | 0.504 | 0.504 | 0.504 | 0.506 | 0.506 | 0.503 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.496 | 0.496 | 0.496 | 0.495 | 0.496 | 0.496 | 1.38 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=60

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.449 | 0.443 | 0.443 | 0.438 | 0.441 | 0.441 | 0 |
| J48 binary tree | 0.561 | 0.519 | 0.519 | 0.524 | 0.523 | 0.517 | 0 |
| AODE | 0.473 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0 |
| Bayes network | 0.513 | 0.504 | 0.503 | 0.505 | 0.505 | 0.504 | 0 |
| Naïve bay | 0.504 | 0.504 | 0.504 | 0.506 | 0.506 | 0.503 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.496 | 0.496 | 0.496 | 0.495 | 0.496 | 0.496 | 1.38 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

1. Feature Selection: Relief

K=10

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.454 | 0.443 | 0.443 | 0.438 | 0.441 | 0.441 | 0 |
| J48 binary tree | 0.515 | 0.534 | 0.534 | 0.539 | 0.538 | 0.533 | 0 |
| AODE | 0.473 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0 |
| Bayes network | 0.513 | 0.504 | 0.503 | 0.505 | 0.505 | 0.504 | 0 |
| Naïve bay | 0.504 | 0.504 | 0.504 | 0.506 | 0.506 | 0.503 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.496 | 0.496 | 0.496 | 0.495 | 0.496 | 0.496 | 1.26 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=20

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.454 | 0.443 | 0.443 | 0.438 | 0.441 | 0.441 | 0 |
| J48 binary tree | 0.515 | 0.534 | 0.534 | 0.539 | 0.538 | 0.533 | 0 |
| AODE | 0.473 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0 |
| Bayes network | 0.513 | 0.504 | 0.503 | 0.505 | 0.505 | 0.504 | 0 |
| Naïve bay | 0.504 | 0.504 | 0.504 | 0.506 | 0.506 | 0.503 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.496 | 0.496 | 0.496 | 0.495 | 0.496 | 0.496 | 1.26 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=30

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.454 | 0.443 | 0.443 | 0.438 | 0.441 | 0.441 | 0 |
| J48 binary tree | 0.515 | 0.534 | 0.534 | 0.539 | 0.538 | 0.533 | 0 |
| AODE | 0.473 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0 |
| Bayes network | 0.513 | 0.504 | 0.503 | 0.505 | 0.505 | 0.504 | 0 |
| Naïve bay | 0.504 | 0.504 | 0.504 | 0.506 | 0.506 | 0.503 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.496 | 0.496 | 0.496 | 0.495 | 0.496 | 0.496 | 1.26 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=40

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.454 | 0.443 | 0.443 | 0.438 | 0.441 | 0.441 | 0 |
| J48 binary tree | 0.515 | 0.534 | 0.534 | 0.539 | 0.538 | 0.533 | 0 |
| AODE | 0.473 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0 |
| Bayes network | 0.513 | 0.504 | 0.503 | 0.505 | 0.505 | 0.504 | 0 |
| Naïve bay | 0.504 | 0.504 | 0.504 | 0.506 | 0.506 | 0.503 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.496 | 0.496 | 0.496 | 0.495 | 0.496 | 0.496 | 1.26 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=50

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.454 | 0.443 | 0.443 | 0.438 | 0.441 | 0.441 | 0 |
| J48 binary tree | 0.515 | 0.534 | 0.534 | 0.539 | 0.538 | 0.533 | 0 |
| AODE | 0.473 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0 |
| Bayes network | 0.513 | 0.504 | 0.503 | 0.505 | 0.505 | 0.504 | 0 |
| Naïve bay | 0.504 | 0.504 | 0.504 | 0.506 | 0.506 | 0.503 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.496 | 0.496 | 0.496 | 0.495 | 0.496 | 0.496 | 1.26 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=60

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.454 | 0.443 | 0.443 | 0.438 | 0.441 | 0.441 | 0 |
| J48 binary tree | 0.515 | 0.534 | 0.534 | 0.539 | 0.538 | 0.533 | 0 |
| AODE | 0.473 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0 |
| Bayes network | 0.513 | 0.504 | 0.503 | 0.505 | 0.505 | 0.504 | 0 |
| Naïve bay | 0.504 | 0.504 | 0.504 | 0.506 | 0.506 | 0.503 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.496 | 0.496 | 0.496 | 0.495 | 0.496 | 0.496 | 1.26 |
| SMO | 0.503 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |