Feature Descriptor: LCP

1. Feature Selection: CFS

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.574 | 0.573 | 0.573 | 0.568 | 0.572 | 0.571 | 0 |
| J48 binary tree | 0.67 | 0.656 | 0.656 | 0.655 | 0.656 | 0.656 | 0 |
| AODE | 0.709 | 0.664 | 0.664 | 0.665 | 0.666 | 0.664 | 0 |
| Bayes network | 0.743 | 0.702 | 0.702 | 0.707 | 0.708 | 0.702 | 0 |
| Naïve bay | 0.744 | 0.695 | 0.695 | 0.7 | 0.701 | 0.694 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.613 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0.9 |
| SMO | 0.618 | 0.618 | 0.618 | 0.618 | 0.619 | 0.618 | 0.04 |
| Muti layer | 0.66 | 0.634 | 0.634 | 0.631 | 0.633 | 0.633 | 10.94 |

1. Feature Selection: Chi-Square

K=10

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.472 | 0.519 | 0.519 | 0.521 | 0.521 | 0.519 | 0 |
| J48 binary tree | 0.558 | 0.534 | 0.534 | 0.529 | 0.533 | 0.532 | 0 |
| AODE | 0.586 | 0.58 | 0.58 | 0.577 | 0.58 | 0.58 | 0 |
| Bayes network | 0.643 | 0.588 | 0.588 | 0.589 | 0.589 | 0.588 | 0 |
| Naïve bay | 0.64 | 0.595 | 0.595 | 0.596 | 0.596 | 0.596 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.565 | 0.565 | 0.565 | 0.566 | 0.565 | 0.97 |
| SMO | 0.533 | 0.534 | 0.534 | 0.532 | 0.534 | 9.534 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

K=20

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.472 | 0.519 | 0.519 | 0.521 | 0.521 | 0.519 | 0 |
| J48 binary tree | 0.558 | 0.534 | 0.534 | 0.529 | 0.533 | 0.532 | 0 |
| AODE | 0.586 | 0.58 | 0.58 | 0.577 | 0.58 | 0.58 | 0 |
| Bayes network | 0.643 | 0.588 | 0.588 | 0.589 | 0.589 | 0.588 | 0 |
| Naïve bay | 0.64 | 0.595 | 0.595 | 0.596 | 0.596 | 0.596 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.565 | 0.565 | 0.565 | 0.566 | 0.565 | 0.97 |
| SMO | 0.533 | 0.534 | 0.534 | 0.532 | 0.534 | 9.534 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

K=30

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.472 | 0.519 | 0.519 | 0.521 | 0.521 | 0.519 | 0 |
| J48 binary tree | 0.558 | 0.534 | 0.534 | 0.529 | 0.533 | 0.532 | 0 |
| AODE | 0.586 | 0.58 | 0.58 | 0.577 | 0.58 | 0.58 | 0 |
| Bayes network | 0.643 | 0.588 | 0.588 | 0.589 | 0.589 | 0.588 | 0 |
| Naïve bay | 0.64 | 0.595 | 0.595 | 0.596 | 0.596 | 0.596 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.565 | 0.565 | 0.565 | 0.566 | 0.565 | 0.97 |
| SMO | 0.533 | 0.534 | 0.534 | 0.532 | 0.534 | 9.534 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

K=40

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.472 | 0.519 | 0.519 | 0.521 | 0.521 | 0.519 | 0 |
| J48 binary tree | 0.558 | 0.534 | 0.534 | 0.529 | 0.533 | 0.532 | 0 |
| AODE | 0.586 | 0.58 | 0.58 | 0.577 | 0.58 | 0.58 | 0 |
| Bayes network | 0.643 | 0.588 | 0.588 | 0.589 | 0.589 | 0.588 | 0 |
| Naïve bay | 0.64 | 0.595 | 0.595 | 0.596 | 0.596 | 0.596 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.565 | 0.565 | 0.565 | 0.566 | 0.565 | 0.98 |
| SMO | 0.533 | 0.534 | 0.534 | 0.532 | 0.534 | 9.534 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

K=50

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.472 | 0.519 | 0.519 | 0.521 | 0.521 | 0.519 | 0 |
| J48 binary tree | 0.558 | 0.534 | 0.534 | 0.529 | 0.533 | 0.532 | 0 |
| AODE | 0.586 | 0.58 | 0.58 | 0.577 | 0.58 | 0.58 | 0 |
| Bayes network | 0.643 | 0.588 | 0.588 | 0.589 | 0.589 | 0.588 | 0 |
| Naïve bay | 0.64 | 0.595 | 0.595 | 0.596 | 0.596 | 0.596 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.565 | 0.565 | 0.565 | 0.566 | 0.565 | 0.97 |
| SMO | 0.533 | 0.534 | 0.534 | 0.532 | 0.534 | 9.534 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

K=60

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.472 | 0.519 | 0.519 | 0.521 | 0.521 | 0.519 | 0 |
| J48 binary tree | 0.558 | 0.534 | 0.534 | 0.529 | 0.533 | 0.532 | 0 |
| AODE | 0.586 | 0.58 | 0.58 | 0.577 | 0.58 | 0.58 | 0 |
| Bayes network | 0.643 | 0.588 | 0.588 | 0.589 | 0.589 | 0.588 | 0 |
| Naïve bay | 0.64 | 0.595 | 0.595 | 0.596 | 0.596 | 0.596 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.565 | 0.565 | 0.565 | 0.566 | 0.565 | 0.98 |
| SMO | 0.533 | 0.534 | 0.534 | 0.532 | 0.534 | 9.534 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

1. Feature Selection: Gain Ratio

K=10

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.472 | 0.519 | 0.519 | 0.521 | 0.521 | 0.519 | 0 |
| J48 binary tree | 0.526 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0 |
| AODE | 0.586 | 0.58 | 0.58 | 0.577 | 0.58 | 0.58 | 0 |
| Bayes network | 0.643 | 0.588 | 0.588 | 0.589 | 0.589 | 0.588 | 0 |
| Naïve bay | 0.64 | 0.595 | 0.595 | 0.596 | 0.596 | 0.596 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.565 | 0.565 | 0.565 | 0.566 | 0.565 | 1 |
| SMO | 0.533 | 0.534 | 0.534 | 0.532 | 0.534 | 9.534 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

K=20

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.472 | 0.519 | 0.519 | 0.521 | 0.521 | 0.519 | 0 |
| J48 binary tree | 0.526 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0 |
| AODE | 0.586 | 0.58 | 0.58 | 0.577 | 0.58 | 0.58 | 0 |
| Bayes network | 0.643 | 0.588 | 0.588 | 0.589 | 0.589 | 0.588 | 0 |
| Naïve bay | 0.64 | 0.595 | 0.595 | 0.596 | 0.596 | 0.596 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.565 | 0.565 | 0.565 | 0.566 | 0.565 | 1 |
| SMO | 0.533 | 0.534 | 0.534 | 0.532 | 0.534 | 9.534 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

K=30

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.472 | 0.519 | 0.519 | 0.521 | 0.521 | 0.519 | 0 |
| J48 binary tree | 0.526 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0 |
| AODE | 0.586 | 0.58 | 0.58 | 0.577 | 0.58 | 0.58 | 0 |
| Bayes network | 0.643 | 0.588 | 0.588 | 0.589 | 0.589 | 0.588 | 0 |
| Naïve bay | 0.64 | 0.595 | 0.595 | 0.596 | 0.596 | 0.596 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.565 | 0.565 | 0.565 | 0.566 | 0.565 | 1 |
| SMO | 0.501 | 0.504 | 0.504 | 0.498 | 0.502 | 0.501 | 0.07 |
| Muti layer |  |  |  |  |  |  |  |

K=40

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.472 | 0.519 | 0.519 | 0.521 | 0.521 | 0.519 | 0 |
| J48 binary tree | 0.526 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0 |
| AODE | 0.586 | 0.58 | 0.58 | 0.577 | 0.58 | 0.58 | 0 |
| Bayes network | 0.643 | 0.588 | 0.588 | 0.589 | 0.589 | 0.588 | 0 |
| Naïve bay | 0.64 | 0.595 | 0.595 | 0.596 | 0.596 | 0.596 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.565 | 0.565 | 0.565 | 0.566 | 0.565 | 1 |
| SMO | 0.533 | 0.534 | 0.534 | 0.532 | 0.534 | 9.534 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

K=50

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.472 | 0.519 | 0.519 | 0.521 | 0.521 | 0.519 | 0 |
| J48 binary tree | 0.526 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0 |
| AODE | 0.586 | 0.58 | 0.58 | 0.577 | 0.58 | 0.58 | 0 |
| Bayes network | 0.643 | 0.588 | 0.588 | 0.589 | 0.589 | 0.588 | 0 |
| Naïve bay | 0.64 | 0.595 | 0.595 | 0.596 | 0.596 | 0.596 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.565 | 0.565 | 0.565 | 0.566 | 0.565 | 1 |
| SMO | 0.533 | 0.534 | 0.534 | 0.532 | 0.534 | 9.534 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

K=60

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.472 | 0.519 | 0.519 | 0.521 | 0.521 | 0.519 | 0 |
| J48 binary tree | 0.526 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0 |
| AODE | 0.586 | 0.58 | 0.58 | 0.577 | 0.58 | 0.58 | 0 |
| Bayes network | 0.643 | 0.588 | 0.588 | 0.589 | 0.589 | 0.588 | 0 |
| Naïve bay | 0.64 | 0.595 | 0.595 | 0.596 | 0.596 | 0.596 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.565 | 0.565 | 0.565 | 0.566 | 0.565 | 1 |
| SMO | 0.533 | 0.534 | 0.534 | 0.532 | 0.534 | 9.534 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

1. Feature Selection: Information Gain

K=10

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.472 | 0.519 | 0.519 | 0.521 | 0.521 | 0.519 | 0 |
| J48 binary tree | 0.516 | 0.511 | 0.511 | 0.509 | 0.511 | 0.511 | 0 |
| AODE | 0.586 | 0.58 | 0.58 | 0.577 | 0.58 | 0.58 | 0 |
| Bayes network | 0.643 | 0.588 | 0.588 | 0.589 | 0.589 | 0.588 | 0 |
| Naïve bay | 0.64 | 0.595 | 0.595 | 0.596 | 0.596 | 0.596 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.565 | 0.565 | 0.565 | 0.566 | 0.565 | 0.99 |
| SMO | 0.533 | 0.534 | 0.534 | 0.532 | 0.534 | 9.534 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

K=20

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.472 | 0.519 | 0.519 | 0.521 | 0.521 | 0.519 | 0 |
| J48 binary tree | 0.516 | 0.511 | 0.511 | 0.509 | 0.511 | 0.511 | 0 |
| AODE | 0.586 | 0.58 | 0.58 | 0.577 | 0.58 | 0.58 | 0 |
| Bayes network | 0.643 | 0.588 | 0.588 | 0.589 | 0.589 | 0.588 | 0 |
| Naïve bay | 0.64 | 0.595 | 0.595 | 0.596 | 0.596 | 0.596 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.565 | 0.565 | 0.565 | 0.566 | 0.565 | 0.99 |
| SMO | 0.533 | 0.534 | 0.534 | 0.532 | 0.534 | 9.534 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

K=30

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.472 | 0.519 | 0.519 | 0.521 | 0.521 | 0.519 | 0 |
| J48 binary tree | 0.516 | 0.511 | 0.511 | 0.509 | 0.511 | 0.511 | 0 |
| AODE | 0.586 | 0.58 | 0.58 | 0.577 | 0.58 | 0.58 | 0 |
| Bayes network | 0.643 | 0.588 | 0.588 | 0.589 | 0.589 | 0.588 | 0 |
| Naïve bay | 0.64 | 0.595 | 0.595 | 0.596 | 0.596 | 0.596 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.565 | 0.565 | 0.565 | 0.566 | 0.565 | 0.99 |
| SMO | 0.533 | 0.534 | 0.534 | 0.532 | 0.534 | 9.534 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

K=40

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.472 | 0.519 | 0.519 | 0.521 | 0.521 | 0.519 | 0 |
| J48 binary tree | 0.516 | 0.511 | 0.511 | 0.509 | 0.511 | 0.511 | 0 |
| AODE | 0.586 | 0.58 | 0.58 | 0.577 | 0.58 | 0.58 | 0 |
| Bayes network | 0.643 | 0.588 | 0.588 | 0.589 | 0.589 | 0.588 | 0 |
| Naïve bay | 0.64 | 0.595 | 0.595 | 0.596 | 0.596 | 0.596 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.565 | 0.565 | 0.565 | 0.566 | 0.565 | 0.99 |
| SMO | 0.533 | 0.534 | 0.534 | 0.532 | 0.534 | 9.534 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

K=50

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.472 | 0.519 | 0.519 | 0.521 | 0.521 | 0.519 | 0 |
| J48 binary tree | 0.516 | 0.511 | 0.511 | 0.509 | 0.511 | 0.511 | 0 |
| AODE | 0.586 | 0.58 | 0.58 | 0.577 | 0.58 | 0.58 | 0 |
| Bayes network | 0.643 | 0.588 | 0.588 | 0.589 | 0.589 | 0.588 | 0 |
| Naïve bay | 0.64 | 0.595 | 0.595 | 0.596 | 0.596 | 0.596 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.565 | 0.565 | 0.565 | 0.566 | 0.565 | 0.99 |
| SMO | 0.533 | 0.534 | 0.534 | 0.532 | 0.534 | 9.534 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

K=60

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.472 | 0.519 | 0.519 | 0.521 | 0.521 | 0.519 | 0 |
| J48 binary tree | 0.516 | 0.511 | 0.511 | 0.509 | 0.511 | 0.511 | 0 |
| AODE | 0.586 | 0.58 | 0.58 | 0.577 | 0.58 | 0.58 | 0 |
| Bayes network | 0.643 | 0.588 | 0.588 | 0.589 | 0.589 | 0.588 | 0 |
| Naïve bay | 0.64 | 0.595 | 0.595 | 0.596 | 0.596 | 0.596 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.565 | 0.565 | 0.565 | 0.566 | 0.565 | 0.99 |
| SMO | 0.533 | 0.534 | 0.534 | 0.532 | 0.534 | 9.534 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

1. Feature Selection: Relief

K=10

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.472 | 0.519 | 0.519 | 0.521 | 0.521 | 0.519 | 0 |
| J48 binary tree | 0.529 | 0.504 | 0.504 | 0.498 | 0.502 | 0.501 | 0 |
| AODE | 0.586 | 0.58 | 0.58 | 0.577 | 0.58 | 0.58 | 0 |
| Bayes network | 0.643 | 0.588 | 0.588 | 0.589 | 0.589 | 0.588 | 0 |
| Naïve bay | 0.64 | 0.595 | 0.595 | 0.596 | 0.596 | 0.596 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.565 | 0.565 | 0.565 | 0.566 | 0.565 | 1.01 |
| SMO | 0.533 | 0.534 | 0.534 | 0.532 | 0.534 | 9.534 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

K=20

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.472 | 0.519 | 0.519 | 0.521 | 0.521 | 0.519 | 0 |
| J48 binary tree | 0.529 | 0.504 | 0.504 | 0.498 | 0.502 | 0.501 | 0 |
| AODE | 0.586 | 0.58 | 0.58 | 0.577 | 0.58 | 0.58 | 0 |
| Bayes network | 0.643 | 0.588 | 0.588 | 0.589 | 0.589 | 0.588 | 0 |
| Naïve bay | 0.64 | 0.595 | 0.595 | 0.596 | 0.596 | 0.596 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.565 | 0.565 | 0.565 | 0.566 | 0.565 | 1.01 |
| SMO | 0.533 | 0.534 | 0.534 | 0.532 | 0.534 | 9.534 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

K=30

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.472 | 0.519 | 0.519 | 0.521 | 0.521 | 0.519 | 0 |
| J48 binary tree | 0.529 | 0.504 | 0.504 | 0.498 | 0.502 | 0.501 | 0 |
| AODE | 0.586 | 0.58 | 0.58 | 0.577 | 0.58 | 0.58 | 0 |
| Bayes network | 0.643 | 0.588 | 0.588 | 0.589 | 0.589 | 0.588 | 0 |
| Naïve bay | 0.64 | 0.595 | 0.595 | 0.596 | 0.596 | 0.596 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.565 | 0.565 | 0.565 | 0.566 | 0.565 | 1.01 |
| SMO | 0.533 | 0.534 | 0.534 | 0.532 | 0.534 | 9.534 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

K=40

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.472 | 0.519 | 0.519 | 0.521 | 0.521 | 0.519 | 0 |
| J48 binary tree | 0.529 | 0.504 | 0.504 | 0.498 | 0.502 | 0.501 | 0 |
| AODE | 0.586 | 0.58 | 0.58 | 0.577 | 0.58 | 0.58 | 0 |
| Bayes network | 0.643 | 0.588 | 0.588 | 0.589 | 0.589 | 0.588 | 0 |
| Naïve bay | 0.64 | 0.595 | 0.595 | 0.596 | 0.596 | 0.596 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.565 | 0.565 | 0.565 | 0.566 | 0.565 | 1.01 |
| SMO | 0.533 | 0.534 | 0.534 | 0.532 | 0.534 | 9.534 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

K=50

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.472 | 0.519 | 0.519 | 0.521 | 0.521 | 0.519 | 0 |
| J48 binary tree | 0.529 | 0.504 | 0.504 | 0.498 | 0.502 | 0.501 | 0 |
| AODE | 0.586 | 0.58 | 0.58 | 0.577 | 0.58 | 0.58 | 0 |
| Bayes network | 0.643 | 0.588 | 0.588 | 0.589 | 0.589 | 0.588 | 0 |
| Naïve bay | 0.64 | 0.595 | 0.595 | 0.596 | 0.596 | 0.596 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.565 | 0.565 | 0.565 | 0.566 | 0.565 | 1.01 |
| SMO | 0.533 | 0.534 | 0.534 | 0.532 | 0.534 | 9.534 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

K=60

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.472 | 0.519 | 0.519 | 0.521 | 0.521 | 0.519 | 0 |
| J48 binary tree | 0.529 | 0.504 | 0.504 | 0.498 | 0.502 | 0.501 | 0 |
| AODE | 0.586 | 0.58 | 0.58 | 0.577 | 0.58 | 0.58 | 0 |
| Bayes network | 0.643 | 0.588 | 0.588 | 0.589 | 0.589 | 0.588 | 0 |
| Naïve bay | 0.64 | 0.595 | 0.595 | 0.596 | 0.596 | 0.596 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.565 | 0.565 | 0.565 | 0.566 | 0.565 | 1.01 |
| SMO | 0.533 | 0.534 | 0.534 | 0.532 | 0.534 | 9.534 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |