Feature Descriptor: LCP

1. Feature Selection: CFS

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.585 | 0.557 | 0.557 | 0.563 | 0.562 | 0.555 | 0 |
| J48 binary tree | 0.543 | 0.557 | 0.557 | 0.559 | 0.559 | 0.557 | 0 |
| AODE | 0.713 | 0.672 | 0.672 | 0.683 | 0.695 | 0.665 | 0 |
| Bayes network | 0.772 | 0.702 | 0.702 | 0.713 | 0.724 | 0.698 | 0 |
| Naïve bay | 0.783 | 0.695 | 0.695 | 0.705 | 0.718 | 0.689 | 0 |
| SVM | 0.607 | 0.618 | 0.618 | 0.595 | 0.669 | 0.578 | 0 |
| Logistic | 0.551 | 0.527 | 0.527 | 0.527 | 0.527 | 0.527 | 0.19 |
| SMO | 0.617 | 0.618 | 0.618 | 0.615 | 0.618 | 0.618 | 0 |
| Muti layer | 0.724 | 0.649 | 0.649 | 0.647 | 0.649 | 0.649 | 10.16 |

1. Feature Selection: Chi-Square

K=10

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.571 | 0.542 | 0.542 | 0.548 | 0.547 | 0.54 | 0 |
| J48 binary tree | 0.544 | 0.565 | 0.565 | 0.562 | 0.564 | 0.564 | 0 |
| AODE | 0.565 | 0.603 | 0.603 | 0.61 | 0.611 | 0.6 | 0 |
| Bayes network | 0.683 | 0.603 | 0.603 | 0.611 | 0.613 | 0.599 | 0 |
| Naïve bay | 0.682 | 0.611 | 0.611 | 0.0.619 | 0.623 | 0.606 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 1.22 |
| SMO | 0.609 | 0.611 | 0.611 | 0.607 | 0.61 | 0.61 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

K=20

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.571 | 0.542 | 0.542 | 0.548 | 0.547 | 0.54 | 0 |
| J48 binary tree | 0.544 | 0.565 | 0.565 | 0.562 | 0.564 | 0.564 | 0 |
| AODE | 0.565 | 0.603 | 0.603 | 0.61 | 0.611 | 0.6 | 0 |
| Bayes network | 0.683 | 0.603 | 0.603 | 0.611 | 0.613 | 0.599 | 0 |
| Naïve bay | 0.682 | 0.611 | 0.611 | 0.0.619 | 0.623 | 0.606 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 1.22 |
| SMO | 0.609 | 0.611 | 0.611 | 0.607 | 0.61 | 0.61 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

K=30

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.571 | 0.542 | 0.542 | 0.548 | 0.547 | 0.54 | 0 |
| J48 binary tree | 0.544 | 0.565 | 0.565 | 0.562 | 0.564 | 0.564 | 0 |
| AODE | 0.565 | 0.603 | 0.603 | 0.61 | 0.611 | 0.6 | 0 |
| Bayes network | 0.683 | 0.603 | 0.603 | 0.611 | 0.613 | 0.599 | 0 |
| Naïve bay | 0.682 | 0.611 | 0.611 | 0.0.619 | 0.623 | 0.606 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 1.22 |
| SMO | 0.609 | 0.611 | 0.611 | 0.607 | 0.61 | 0.61 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

K=40

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.571 | 0.542 | 0.542 | 0.548 | 0.547 | 0.54 | 0 |
| J48 binary tree | 0.544 | 0.565 | 0.565 | 0.562 | 0.564 | 0.564 | 0 |
| AODE | 0.565 | 0.603 | 0.603 | 0.61 | 0.611 | 0.6 | 0 |
| Bayes network | 0.683 | 0.603 | 0.603 | 0.611 | 0.613 | 0.599 | 0 |
| Naïve bay | 0.682 | 0.611 | 0.611 | 0.0.619 | 0.623 | 0.606 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 1.22 |
| SMO | 0.609 | 0.611 | 0.611 | 0.607 | 0.61 | 0.61 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

K=50

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.571 | 0.542 | 0.542 | 0.548 | 0.547 | 0.54 | 0 |
| J48 binary tree | 0.544 | 0.565 | 0.565 | 0.562 | 0.564 | 0.564 | 0 |
| AODE | 0.565 | 0.603 | 0.603 | 0.61 | 0.611 | 0.6 | 0 |
| Bayes network | 0.683 | 0.603 | 0.603 | 0.611 | 0.613 | 0.599 | 0 |
| Naïve bay | 0.682 | 0.611 | 0.611 | 0.0.619 | 0.623 | 0.606 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 1.22 |
| SMO | 0.609 | 0.611 | 0.611 | 0.607 | 0.61 | 0.61 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

K=60

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.571 | 0.542 | 0.542 | 0.548 | 0.547 | 0.54 | 0 |
| J48 binary tree | 0.544 | 0.565 | 0.565 | 0.562 | 0.564 | 0.564 | 0 |
| AODE | 0.565 | 0.603 | 0.603 | 0.61 | 0.611 | 0.6 | 0 |
| Bayes network | 0.683 | 0.603 | 0.603 | 0.611 | 0.613 | 0.599 | 0 |
| Naïve bay | 0.682 | 0.611 | 0.611 | 0.0.619 | 0.623 | 0.606 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 1.22 |
| SMO | 0.609 | 0.611 | 0.611 | 0.607 | 0.61 | 0.61 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

1. Feature Selection: Gain Ratio

K=10

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.571 | 0.542 | 0.542 | 0.548 | 0.547 | 0.54 | 0 |
| J48 binary tree | 0.537 | 0.557 | 0.557 | 0.554 | 0.556 | 0.556 | 0 |
| AODE | 0.656 | 0.603 | 0.603 | 0.61 | 0.611 | 0.6 | 0 |
| Bayes network | 0.683 | 0.603 | 0.603 | 0.611 | 0.613 | 0.599 | 0 |
| Naïve bay | 0.682 | 0.611 | 0.611 | 0.0.619 | 0.623 | 0.606 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 1.08 |
| SMO | 0.609 | 0.611 | 0.611 | 0.607 | 0.61 | 0.61 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

K=20

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.571 | 0.542 | 0.542 | 0.548 | 0.547 | 0.54 | 0 |
| J48 binary tree | 0.537 | 0.557 | 0.557 | 0.554 | 0.556 | 0.556 | 0 |
| AODE | 0.656 | 0.603 | 0.603 | 0.61 | 0.611 | 0.6 | 0 |
| Bayes network | 0.683 | 0.603 | 0.603 | 0.611 | 0.613 | 0.599 | 0 |
| Naïve bay | 0.682 | 0.611 | 0.611 | 0.0.619 | 0.623 | 0.606 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 1.08 |
| SMO | 0.609 | 0.611 | 0.611 | 0.607 | 0.61 | 0.61 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

K=30

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.571 | 0.542 | 0.542 | 0.548 | 0.547 | 0.54 | 0 |
| J48 binary tree | 0.537 | 0.557 | 0.557 | 0.554 | 0.556 | 0.556 | 0 |
| AODE | 0.656 | 0.603 | 0.603 | 0.61 | 0.611 | 0.6 | 0 |
| Bayes network | 0.683 | 0.603 | 0.603 | 0.611 | 0.613 | 0.599 | 0 |
| Naïve bay | 0.682 | 0.611 | 0.611 | 0.0.619 | 0.623 | 0.606 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 1.08 |
| SMO | 0.609 | 0.611 | 0.611 | 0.607 | 0.61 | 0.61 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

K=40

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.571 | 0.542 | 0.542 | 0.548 | 0.547 | 0.54 | 0 |
| J48 binary tree | 0.537 | 0.557 | 0.557 | 0.554 | 0.556 | 0.556 | 0 |
| AODE | 0.656 | 0.603 | 0.603 | 0.61 | 0.611 | 0.6 | 0 |
| Bayes network | 0.683 | 0.603 | 0.603 | 0.611 | 0.613 | 0.599 | 0 |
| Naïve bay | 0.682 | 0.611 | 0.611 | 0.0.619 | 0.623 | 0.606 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 1.08 |
| SMO | 0.609 | 0.611 | 0.611 | 0.607 | 0.61 | 0.61 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

K=50

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.571 | 0.542 | 0.542 | 0.548 | 0.547 | 0.54 | 0 |
| J48 binary tree | 0.537 | 0.557 | 0.557 | 0.554 | 0.556 | 0.556 | 0 |
| AODE | 0.656 | 0.603 | 0.603 | 0.61 | 0.611 | 0.6 | 0 |
| Bayes network | 0.683 | 0.603 | 0.603 | 0.611 | 0.613 | 0.599 | 0 |
| Naïve bay | 0.682 | 0.611 | 0.611 | 0.0.619 | 0.623 | 0.606 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 1.08 |
| SMO | 0.609 | 0.611 | 0.611 | 0.607 | 0.61 | 0.61 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

K=60

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.571 | 0.542 | 0.542 | 0.548 | 0.547 | 0.54 | 0 |
| J48 binary tree | 0.537 | 0.557 | 0.557 | 0.554 | 0.556 | 0.556 | 0 |
| AODE | 0.656 | 0.603 | 0.603 | 0.61 | 0.611 | 0.6 | 0 |
| Bayes network | 0.683 | 0.603 | 0.603 | 0.611 | 0.613 | 0.599 | 0 |
| Naïve bay | 0.682 | 0.611 | 0.611 | 0.0.619 | 0.623 | 0.606 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 1 |
| SMO | 0.609 | 0.611 | 0.611 | 0.607 | 0.61 | 0.61 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

1. Feature Selection: Information Gain

K=10

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.571 | 0.542 | 0.542 | 0.548 | 0.547 | 0.54 | 0 |
| J48 binary tree | 0.548 | 0.565 | 0.565 | 0.562 | 0.564 | 0.564 | 0 |
| AODE | 0.656 | 0.603 | 0.603 | 0.61 | 0.611 | 0.6 | 0 |
| Bayes network | 0.683 | 0.603 | 0.603 | 0.611 | 0.613 | 0.599 | 0 |
| Naïve bay | 0.682 | 0.611 | 0.611 | 0.0.619 | 0.623 | 0.606 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 1.09 |
| SMO | 0.609 | 0.611 | 0.611 | 0.607 | 0.61 | 0.61 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

K=20

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.571 | 0.542 | 0.542 | 0.548 | 0.547 | 0.54 | 0 |
| J48 binary tree | 0.548 | 0.565 | 0.565 | 0.562 | 0.564 | 0.564 | 0 |
| AODE | 0.656 | 0.603 | 0.603 | 0.61 | 0.611 | 0.6 | 0 |
| Bayes network | 0.683 | 0.603 | 0.603 | 0.611 | 0.613 | 0.599 | 0 |
| Naïve bay | 0.682 | 0.611 | 0.611 | 0.0.619 | 0.623 | 0.606 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 1.09 |
| SMO | 0.609 | 0.611 | 0.611 | 0.607 | 0.61 | 0.61 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

K=30

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.571 | 0.542 | 0.542 | 0.548 | 0.547 | 0.54 | 0 |
| J48 binary tree | 0.548 | 0.565 | 0.565 | 0.562 | 0.564 | 0.564 | 0 |
| AODE | 0.656 | 0.603 | 0.603 | 0.61 | 0.611 | 0.6 | 0 |
| Bayes network | 0.683 | 0.603 | 0.603 | 0.611 | 0.613 | 0.599 | 0 |
| Naïve bay | 0.682 | 0.611 | 0.611 | 0.0.619 | 0.623 | 0.606 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 1.09 |
| SMO | 0.609 | 0.611 | 0.611 | 0.607 | 0.61 | 0.61 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

K=40

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.571 | 0.542 | 0.542 | 0.548 | 0.547 | 0.54 | 0 |
| J48 binary tree | 0.548 | 0.565 | 0.565 | 0.562 | 0.564 | 0.564 | 0 |
| AODE | 0.656 | 0.603 | 0.603 | 0.61 | 0.611 | 0.6 | 0 |
| Bayes network | 0.683 | 0.603 | 0.603 | 0.611 | 0.613 | 0.599 | 0 |
| Naïve bay | 0.682 | 0.611 | 0.611 | 0.0.619 | 0.623 | 0.606 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 1.09 |
| SMO | 0.609 | 0.611 | 0.611 | 0.607 | 0.61 | 0.61 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

K=50

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.571 | 0.542 | 0.542 | 0.548 | 0.547 | 0.54 | 0 |
| J48 binary tree | 0.548 | 0.565 | 0.565 | 0.562 | 0.564 | 0.564 | 0 |
| AODE | 0.656 | 0.603 | 0.603 | 0.61 | 0.611 | 0.6 | 0 |
| Bayes network | 0.683 | 0.603 | 0.603 | 0.611 | 0.613 | 0.599 | 0 |
| Naïve bay | 0.682 | 0.611 | 0.611 | 0.0.619 | 0.623 | 0.606 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 1.09 |
| SMO | 0.609 | 0.611 | 0.611 | 0.607 | 0.61 | 0.61 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

K=60

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.571 | 0.542 | 0.542 | 0.548 | 0.547 | 0.54 | 0 |
| J48 binary tree | 0.548 | 0.565 | 0.565 | 0.562 | 0.564 | 0.564 | 0 |
| AODE | 0.656 | 0.603 | 0.603 | 0.61 | 0.611 | 0.6 | 0 |
| Bayes network | 0.683 | 0.603 | 0.603 | 0.611 | 0.613 | 0.599 | 0 |
| Naïve bay | 0.682 | 0.611 | 0.611 | 0.0.619 | 0.623 | 0.606 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 1.09 |
| SMO | 0.609 | 0.611 | 0.611 | 0.607 | 0.61 | 0.61 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

1. Feature Selection: Relief

K=10

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.567 | 0.542 | 0.542 | 0.548 | 0.547 | 0.54 | 0 |
| J48 binary tree | 0.495 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0 |
| AODE | 0.656 | 0.603 | 0.603 | 0.61 | 0.611 | 0.6 | 0 |
| Bayes network | 0.683 | 0.603 | 0.603 | 0.611 | 0.613 | 0.599 | 0 |
| Naïve bay | 0.682 | 0.611 | 0.611 | 0.0.619 | 0.623 | 0.606 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 1.12 |
| SMO | 0.609 | 0.611 | 0.611 | 0.607 | 0.61 | 0.61 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

K=20

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.567 | 0.542 | 0.542 | 0.548 | 0.547 | 0.54 | 0 |
| J48 binary tree | 0.495 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0 |
| AODE | 0.656 | 0.603 | 0.603 | 0.61 | 0.611 | 0.6 | 0 |
| Bayes network | 0.683 | 0.603 | 0.603 | 0.611 | 0.613 | 0.599 | 0 |
| Naïve bay | 0.682 | 0.611 | 0.611 | 0.0.619 | 0.623 | 0.606 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 1.12 |
| SMO | 0.609 | 0.611 | 0.611 | 0.607 | 0.61 | 0.61 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

K=30

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.567 | 0.542 | 0.542 | 0.548 | 0.547 | 0.54 | 0 |
| J48 binary tree | 0.495 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0 |
| AODE | 0.656 | 0.603 | 0.603 | 0.61 | 0.611 | 0.6 | 0 |
| Bayes network | 0.683 | 0.603 | 0.603 | 0.611 | 0.613 | 0.599 | 0 |
| Naïve bay | 0.682 | 0.611 | 0.611 | 0.0.619 | 0.623 | 0.606 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 1.12 |
| SMO | 0.609 | 0.611 | 0.611 | 0.607 | 0.61 | 0.61 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

K=40

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.567 | 0.542 | 0.542 | 0.548 | 0.547 | 0.54 | 0 |
| J48 binary tree | 0.495 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0 |
| AODE | 0.656 | 0.603 | 0.603 | 0.61 | 0.611 | 0.6 | 0 |
| Bayes network | 0.683 | 0.603 | 0.603 | 0.611 | 0.613 | 0.599 | 0 |
| Naïve bay | 0.682 | 0.611 | 0.611 | 0.0.619 | 0.623 | 0.606 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 1.12 |
| SMO | 0.609 | 0.611 | 0.611 | 0.607 | 0.61 | 0.61 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

K=50

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.567 | 0.542 | 0.542 | 0.548 | 0.547 | 0.54 | 0 |
| J48 binary tree | 0.495 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0 |
| AODE | 0.656 | 0.603 | 0.603 | 0.61 | 0.611 | 0.6 | 0 |
| Bayes network | 0.683 | 0.603 | 0.603 | 0.611 | 0.613 | 0.599 | 0 |
| Naïve bay | 0.682 | 0.611 | 0.611 | 0.0.619 | 0.623 | 0.606 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 1.12 |
| SMO | 0.609 | 0.611 | 0.611 | 0.607 | 0.61 | 0.61 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |

K=60

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.567 | 0.542 | 0.542 | 0.548 | 0.547 | 0.54 | 0 |
| J48 binary tree | 0.495 | 0.504 | 0.504 | 0.503 | 0.504 | 0.504 | 0 |
| AODE | 0.656 | 0.603 | 0.603 | 0.61 | 0.611 | 0.6 | 0 |
| Bayes network | 0.683 | 0.603 | 0.603 | 0.611 | 0.613 | 0.599 | 0 |
| Naïve bay | 0.682 | 0.611 | 0.611 | 0.0.619 | 0.623 | 0.606 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.04 |
| Logistic | 0.619 | 0.603 | 0.603 | 0.603 | 0.604 | 0.603 | 1.12 |
| SMO | 0.609 | 0.611 | 0.611 | 0.607 | 0.61 | 0.61 | 0.04 |
| Muti layer |  |  |  |  |  |  |  |