Feature Descriptor: CLBP

1. Feature Selection: CFS

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.591 | 0.557 | 0.557 | 0.551 | 0.556 | 0.555 | 0 |
| J48 binary tree | 0.729 | 0.679 | 0.679 | 0. 698 | 0.694 | 0.676 | 0 |
| AODE | 0.721 | 0.634 | 0.634 | 0.641 | 0.643 | 0.631 | 0 |
| Bayes network | 0.766 | 0.687 | 0.687 | 0.69 | 0.69 | 0.687 | 0 |
| Naïve bay | 0.76 | 0.679 | 0.679 | 0.683 | 0.684 | 0.679 | 0 |
| SVM | 0.603 | 0.611 | 0.611 | 0.595 | 0.623 | 0.593 | 0 |
| Logistic | 0.713 | 0.672 | 0.672 | 0.673 | 0.673 | 0.672 | 0 |
| SMO | 0.643 | 0.641 | 0.641 | 0.644 | 0.644 | 0.641 | 0 |
| Muti layer | 0.694 | 0.634 | 0.634 | 0.635 | 0.635 | 0.634 | 1.31 |

1. Feature Selection: Chi-Square

K=10

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.595 | 0.611 | 0.611 | 0.612 | 0.612 | 0.611 | 0 |
| J48 binary tree | 0.529 | 0.481 | 0.481 | 0.479 | 0.481 | 0.481 | 0 |
| AODE | 0.624 | 0.542 | 0.542 | 0.55 | 0.549 | 0.537 | 0 |
| Bayes network | 0.618 | 0.542 | 0.542 | 0.549 | 0.548 | 0.539 | 0 |
| Naïve bay | 0.614 | 0.534 | 0.534 | 0.542 | 0.54 | 0.53 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.535 | 0.534 | 0.534 | 0.538 | 0.537 | 0.533 | 1.2 |
| SMO | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=20

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.595 | 0.611 | 0.611 | 0.612 | 0.612 | 0.611 | 0 |
| J48 binary tree | 0.529 | 0.481 | 0.481 | 0.479 | 0.481 | 0.481 | 0 |
| AODE | 0.624 | 0.542 | 0.542 | 0.55 | 0.549 | 0.537 | 0 |
| Bayes network | 0.618 | 0.542 | 0.542 | 0.549 | 0.548 | 0.539 | 0 |
| Naïve bay | 0.614 | 0.534 | 0.534 | 0.542 | 0.54 | 0.53 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.535 | 0.534 | 0.534 | 0.538 | 0.537 | 0.533 | 1.2 |
| SMO | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=30

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.595 | 0.611 | 0.611 | 0.612 | 0.612 | 0.611 | 0 |
| J48 binary tree | 0.529 | 0.481 | 0.481 | 0.479 | 0.481 | 0.481 | 0 |
| AODE | 0.624 | 0.542 | 0.542 | 0.55 | 0.549 | 0.537 | 0 |
| Bayes network | 0.618 | 0.542 | 0.542 | 0.549 | 0.548 | 0.539 | 0 |
| Naïve bay | 0.614 | 0.534 | 0.534 | 0.542 | 0.54 | 0.53 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.535 | 0.534 | 0.534 | 0.538 | 0.537 | 0.533 | 1.2 |
| SMO | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=40

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.595 | 0.611 | 0.611 | 0.612 | 0.612 | 0.611 | 0 |
| J48 binary tree | 0.529 | 0.481 | 0.481 | 0.479 | 0.481 | 0.481 | 0 |
| AODE | 0.624 | 0.542 | 0.542 | 0.55 | 0.549 | 0.537 | 0 |
| Bayes network | 0.618 | 0.542 | 0.542 | 0.549 | 0.548 | 0.539 | 0 |
| Naïve bay | 0.614 | 0.534 | 0.534 | 0.542 | 0.54 | 0.53 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.535 | 0.534 | 0.534 | 0.538 | 0.537 | 0.533 | 1.2 |
| SMO | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=50

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.595 | 0.611 | 0.611 | 0.612 | 0.612 | 0.611 | 0 |
| J48 binary tree | 0.529 | 0.481 | 0.481 | 0.479 | 0.481 | 0.481 | 0 |
| AODE | 0.624 | 0.542 | 0.542 | 0.55 | 0.549 | 0.537 | 0 |
| Bayes network | 0.618 | 0.542 | 0.542 | 0.549 | 0.548 | 0.539 | 0 |
| Naïve bay | 0.614 | 0.534 | 0.534 | 0.542 | 0.54 | 0.53 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.535 | 0.534 | 0.534 | 0.538 | 0.537 | 0.533 | 1.2 |
| SMO | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=60

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.595 | 0.611 | 0.611 | 0.612 | 0.612 | 0.611 | 0 |
| J48 binary tree | 0.529 | 0.481 | 0.481 | 0.479 | 0.481 | 0.481 | 0 |
| AODE | 0.624 | 0.542 | 0.542 | 0.55 | 0.549 | 0.537 | 0 |
| Bayes network | 0.618 | 0.542 | 0.542 | 0.549 | 0.548 | 0.539 | 0 |
| Naïve bay | 0.614 | 0.534 | 0.534 | 0.542 | 0.54 | 0.53 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.535 | 0.534 | 0.534 | 0.538 | 0.537 | 0.533 | 1.06 |
| SMO | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

1. Feature Selection: Gain Ratio

K=10

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.593 | 0.611 | 0.611 | 0.612 | 0.612 | 0.611 | 0 |
| J48 binary tree | 0.5 | 0.473 | 0.473 | 0.475 | 0.475 | 0.473 | 0 |
| AODE | 0.624 | 0.542 | 0.542 | 0.55 | 0.549 | 0.537 | 0 |
| Bayes network | 0.618 | 0.542 | 0.542 | 0.549 | 0.548 | 0.539 | 0 |
| Naïve bay | 0.614 | 0.534 | 0.534 | 0.542 | 0.54 | 0.53 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.535 | 0.534 | 0.534 | 0.538 | 0.537 | 0.533 | 1.08 |
| SMO | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=20

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.593 | 0.611 | 0.611 | 0.612 | 0.612 | 0.611 | 0 |
| J48 binary tree | 0.5 | 0.473 | 0.473 | 0.475 | 0.475 | 0.473 | 0 |
| AODE | 0.624 | 0.542 | 0.542 | 0.55 | 0.549 | 0.537 | 0 |
| Bayes network | 0.618 | 0.542 | 0.542 | 0.549 | 0.548 | 0.539 | 0 |
| Naïve bay | 0.614 | 0.534 | 0.534 | 0.542 | 0.54 | 0.53 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.535 | 0.534 | 0.534 | 0.538 | 0.537 | 0.533 | 1.08 |
| SMO | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=30

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.593 | 0.611 | 0.611 | 0.612 | 0.612 | 0.611 | 0 |
| J48 binary tree | 0.5 | 0.473 | 0.473 | 0.475 | 0.475 | 0.473 | 0 |
| AODE | 0.624 | 0.542 | 0.542 | 0.55 | 0.549 | 0.537 | 0 |
| Bayes network | 0.618 | 0.542 | 0.542 | 0.549 | 0.548 | 0.539 | 0 |
| Naïve bay | 0.614 | 0.534 | 0.534 | 0.542 | 0.54 | 0.53 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.535 | 0.534 | 0.534 | 0.538 | 0.537 | 0.533 | 1.08 |
| SMO | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=40

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.593 | 0.611 | 0.611 | 0.612 | 0.612 | 0.611 | 0 |
| J48 binary tree | 0.5 | 0.473 | 0.473 | 0.475 | 0.475 | 0.473 | 0 |
| AODE | 0.624 | 0.542 | 0.542 | 0.55 | 0.549 | 0.537 | 0 |
| Bayes network | 0.618 | 0.542 | 0.542 | 0.549 | 0.548 | 0.539 | 0 |
| Naïve bay | 0.614 | 0.534 | 0.534 | 0.542 | 0.54 | 0.53 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.535 | 0.534 | 0.534 | 0.538 | 0.537 | 0.533 | 1.08 |
| SMO | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=50

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.593 | 0.611 | 0.611 | 0.612 | 0.612 | 0.611 | 0 |
| J48 binary tree | 0.5 | 0.473 | 0.473 | 0.475 | 0.475 | 0.473 | 0 |
| AODE | 0.624 | 0.542 | 0.542 | 0.55 | 0.549 | 0.537 | 0 |
| Bayes network | 0.618 | 0.542 | 0.542 | 0.549 | 0.548 | 0.539 | 0 |
| Naïve bay | 0.614 | 0.534 | 0.534 | 0.542 | 0.54 | 0.53 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.535 | 0.534 | 0.534 | 0.538 | 0.537 | 0.533 | 1.08 |
| SMO | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=60

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.593 | 0.611 | 0.611 | 0.612 | 0.612 | 0.611 | 0 |
| J48 binary tree | 0.5 | 0.473 | 0.473 | 0.475 | 0.475 | 0.473 | 0 |
| AODE | 0.624 | 0.542 | 0.542 | 0.55 | 0.549 | 0.537 | 0 |
| Bayes network | 0.618 | 0.542 | 0.542 | 0.549 | 0.548 | 0.539 | 0 |
| Naïve bay | 0.614 | 0.534 | 0.534 | 0.542 | 0.54 | 0.53 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.535 | 0.534 | 0.534 | 0.538 | 0.537 | 0.533 | 1.08 |
| SMO | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

1. Feature Selection: Information Gain

K=10

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.595 | 0.611 | 0.611 | 0.612 | 0.612 | 0.611 | 0 |
| J48 binary tree | 0.51 | 0.481 | 0.481 | 0.482 | 0.482 | 0.481 | 0 |
| AODE | 0.624 | 0.542 | 0.542 | 0.55 | 0.549 | 0.537 | 0 |
| Bayes network | 0.618 | 0.542 | 0.542 | 0.549 | 0.548 | 0.539 | 0 |
| Naïve bay | 0.614 | 0.534 | 0.534 | 0.542 | 0.54 | 0.53 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.535 | 0.534 | 0.534 | 0.538 | 0.537 | 0.533 | 1.21 |
| SMO | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=20

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.595 | 0.611 | 0.611 | 0.612 | 0.612 | 0.611 | 0 |
| J48 binary tree | 0.51 | 0.481 | 0.481 | 0.482 | 0.482 | 0.481 | 0 |
| AODE | 0.624 | 0.542 | 0.542 | 0.55 | 0.549 | 0.537 | 0 |
| Bayes network | 0.618 | 0.542 | 0.542 | 0.549 | 0.548 | 0.539 | 0 |
| Naïve bay | 0.614 | 0.534 | 0.534 | 0.542 | 0.54 | 0.53 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.535 | 0.534 | 0.534 | 0.538 | 0.537 | 0.533 | 1.21 |
| SMO | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=30

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.595 | 0.611 | 0.611 | 0.612 | 0.612 | 0.611 | 0 |
| J48 binary tree | 0.51 | 0.481 | 0.481 | 0.482 | 0.482 | 0.481 | 0 |
| AODE | 0.624 | 0.542 | 0.542 | 0.55 | 0.549 | 0.537 | 0 |
| Bayes network | 0.618 | 0.542 | 0.542 | 0.549 | 0.548 | 0.539 | 0 |
| Naïve bay | 0.614 | 0.534 | 0.534 | 0.542 | 0.54 | 0.53 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.535 | 0.534 | 0.534 | 0.538 | 0.537 | 0.533 | 1.21 |
| SMO | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=40

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.595 | 0.611 | 0.611 | 0.612 | 0.612 | 0.611 | 0 |
| J48 binary tree | 0.51 | 0.481 | 0.481 | 0.482 | 0.482 | 0.481 | 0 |
| AODE | 0.624 | 0.542 | 0.542 | 0.55 | 0.549 | 0.537 | 0 |
| Bayes network | 0.618 | 0.542 | 0.542 | 0.549 | 0.548 | 0.539 | 0 |
| Naïve bay | 0.614 | 0.534 | 0.534 | 0.542 | 0.54 | 0.53 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.535 | 0.534 | 0.534 | 0.538 | 0.537 | 0.533 | 1.21 |
| SMO | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=50

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.595 | 0.611 | 0.611 | 0.612 | 0.612 | 0.611 | 0 |
| J48 binary tree | 0.51 | 0.481 | 0.481 | 0.482 | 0.482 | 0.481 | 0 |
| AODE | 0.624 | 0.542 | 0.542 | 0.55 | 0.549 | 0.537 | 0 |
| Bayes network | 0.618 | 0.542 | 0.542 | 0.549 | 0.548 | 0.539 | 0 |
| Naïve bay | 0.614 | 0.534 | 0.534 | 0.542 | 0.54 | 0.53 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.535 | 0.534 | 0.534 | 0.538 | 0.537 | 0.533 | 1.21 |
| SMO | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=60

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.595 | 0.611 | 0.611 | 0.612 | 0.612 | 0.611 | 0 |
| J48 binary tree | 0.51 | 0.481 | 0.481 | 0.482 | 0.482 | 0.481 | 0 |
| AODE | 0.624 | 0.542 | 0.542 | 0.55 | 0.549 | 0.537 | 0 |
| Bayes network | 0.618 | 0.542 | 0.542 | 0.549 | 0.548 | 0.539 | 0 |
| Naïve bay | 0.614 | 0.534 | 0.534 | 0.542 | 0.54 | 0.53 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.535 | 0.534 | 0.534 | 0.538 | 0.537 | 0.533 | 1.09 |
| SMO | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

1. Feature Selection: Relief

K=10

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.616 | 0.634 | 0.634 | 0.635 | 0.635 | 0.634 | 0 |
| J48 binary tree | 0.521 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0 |
| AODE | 0.624 | 0.542 | 0.542 | 0.55 | 0.549 | 0.537 | 0 |
| Bayes network | 0.618 | 0.542 | 0.542 | 0.549 | 0.548 | 0.539 | 0 |
| Naïve bay | 0.614 | 0.534 | 0.534 | 0.542 | 0.54 | 0.53 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.535 | 0.534 | 0.534 | 0.538 | 0.537 | 0.533 | 1.16 |
| SMO | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=20

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.616 | 0.634 | 0.634 | 0.635 | 0.635 | 0.634 | 0 |
| J48 binary tree | 0.521 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0 |
| AODE | 0.624 | 0.542 | 0.542 | 0.55 | 0.549 | 0.537 | 0 |
| Bayes network | 0.618 | 0.542 | 0.542 | 0.549 | 0.548 | 0.539 | 0 |
| Naïve bay | 0.614 | 0.534 | 0.534 | 0.542 | 0.54 | 0.53 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.535 | 0.534 | 0.534 | 0.538 | 0.537 | 0.533 | 1.16 |
| SMO | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=30

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.616 | 0.634 | 0.634 | 0.635 | 0.635 | 0.634 | 0 |
| J48 binary tree | 0.521 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0 |
| AODE | 0.624 | 0.542 | 0.542 | 0.55 | 0.549 | 0.537 | 0 |
| Bayes network | 0.618 | 0.542 | 0.542 | 0.549 | 0.548 | 0.539 | 0 |
| Naïve bay | 0.614 | 0.534 | 0.534 | 0.542 | 0.54 | 0.53 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.535 | 0.534 | 0.534 | 0.538 | 0.537 | 0.533 | 1.16 |
| SMO | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=40

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.616 | 0.634 | 0.634 | 0.635 | 0.635 | 0.634 | 0 |
| J48 binary tree | 0.521 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0 |
| AODE | 0.624 | 0.542 | 0.542 | 0.55 | 0.549 | 0.537 | 0 |
| Bayes network | 0.618 | 0.542 | 0.542 | 0.549 | 0.548 | 0.539 | 0 |
| Naïve bay | 0.614 | 0.534 | 0.534 | 0.542 | 0.54 | 0.53 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.535 | 0.534 | 0.534 | 0.538 | 0.537 | 0.533 | 1.16 |
| SMO | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=50

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.616 | 0.634 | 0.634 | 0.635 | 0.635 | 0.634 | 0 |
| J48 binary tree | 0.521 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0 |
| AODE | 0.624 | 0.542 | 0.542 | 0.55 | 0.549 | 0.537 | 0 |
| Bayes network | 0.618 | 0.542 | 0.542 | 0.549 | 0.548 | 0.539 | 0 |
| Naïve bay | 0.614 | 0.534 | 0.534 | 0.542 | 0.54 | 0.53 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.535 | 0.534 | 0.534 | 0.538 | 0.537 | 0.533 | 1.16 |
| SMO | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=60

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.616 | 0.634 | 0.634 | 0.635 | 0.635 | 0.634 | 0 |
| J48 binary tree | 0.521 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0 |
| AODE | 0.624 | 0.542 | 0.542 | 0.55 | 0.549 | 0.537 | 0 |
| Bayes network | 0.618 | 0.542 | 0.542 | 0.549 | 0.548 | 0.539 | 0 |
| Naïve bay | 0.614 | 0.534 | 0.534 | 0.542 | 0.54 | 0.53 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.535 | 0.534 | 0.534 | 0.538 | 0.537 | 0.533 | 1.16 |
| SMO | 0.564 | 0.565 | 0.565 | 0.563 | 0.565 | 0.565 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |