Feature Descriptor: CLBP

1. Feature Selection: CFS

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.757 | 0.779 | 0.779 | 0.78 | 0.78 | 0.779 | 0 |
| J48 binary tree | 0.634 | 0.664 | 0.664 | 0.662 | 0.664 | 0.664 | 0 |
| AODE | 0.82 | 0.756 | 0.756 | 0.756 | 0.756 | 0.756 | 0 |
| Bayes network | 0.829 | 0.763 | 0.763 | 0.762 | 0.763 | 0.763 | 0 |
| Naïve bay | 0.826 | 0.763 | 0.763 | 0.762 | 0.763 | 0.763 | 0 |
| SVM | 0.679 | 0.687 | 0.687 | 0.672 | 0.715 | 0.673 | 0 |
| Logistic | 0.641 | 0.611 | 0.611 | 0.608 | 0.61 | 0.61 | 0 |
| SMO | 0.747 | 0.748 | 0.748 | 0.746 | 0.748 | 0.748 | 0 |
| Muti layer | 0.81 | 0.756 | 0.756 | 0.756 | 0.756 | 0.756 | 3.11 |

1. Feature Selection: Chi-Square

K=10

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.627 | 0.687 | 0.687 | 0.683 | 0.687 | 0.686 | 0 |
| J48 binary tree | 0.607 | 0.58 | 0.58 | 0.581 | 0.581 | 0.58 | 0 |
| AODE | 0.609 | 0.504 | 0.504 | 0.504 | 0.505 | 0.504 | 0 |
| Bayes network | 0.615 | 0.58 | 0.58 | 0.587 | 0.587 | 0.578 | 0 |
| Naïve bay | 0.615 | 0.573 | 0.573 | 0.579 | 0.58 | 0.569 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.62 | 0.611 | 0.611 | 0.611 | 0.612 | 0.611 | 0.75 |
| SMO | 0.571 | 0.573 | 0.573 | 0.569 | 0.572 | 0.572 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=20

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.627 | 0.687 | 0.687 | 0.683 | 0.687 | 0.686 | 0 |
| J48 binary tree | 0.607 | 0.58 | 0.58 | 0.581 | 0.581 | 0.58 | 0 |
| AODE | 0.609 | 0.504 | 0.504 | 0.504 | 0.505 | 0.504 | 0 |
| Bayes network | 0.615 | 0.58 | 0.58 | 0.587 | 0.587 | 0.578 | 0 |
| Naïve bay | 0.615 | 0.573 | 0.573 | 0.579 | 0.58 | 0.569 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.62 | 0.611 | 0.611 | 0.611 | 0.612 | 0.611 | 0.75 |
| SMO | 0.571 | 0.573 | 0.573 | 0.569 | 0.572 | 0.572 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=30

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.627 | 0.687 | 0.687 | 0.683 | 0.687 | 0.686 | 0 |
| J48 binary tree | 0.607 | 0.58 | 0.58 | 0.581 | 0.581 | 0.58 | 0 |
| AODE | 0.609 | 0.504 | 0.504 | 0.504 | 0.505 | 0.504 | 0 |
| Bayes network | 0.615 | 0.58 | 0.58 | 0.587 | 0.587 | 0.578 | 0 |
| Naïve bay | 0.615 | 0.573 | 0.573 | 0.579 | 0.58 | 0.569 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.62 | 0.611 | 0.611 | 0.611 | 0.612 | 0.611 | 0.75 |
| SMO | 0.571 | 0.573 | 0.573 | 0.569 | 0.572 | 0.572 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=40

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.627 | 0.687 | 0.687 | 0.683 | 0.687 | 0.686 | 0 |
| J48 binary tree | 0.607 | 0.58 | 0.58 | 0.581 | 0.581 | 0.58 | 0 |
| AODE | 0.609 | 0.504 | 0.504 | 0.504 | 0.505 | 0.504 | 0 |
| Bayes network | 0.615 | 0.58 | 0.58 | 0.587 | 0.587 | 0.578 | 0 |
| Naïve bay | 0.615 | 0.573 | 0.573 | 0.579 | 0.58 | 0.569 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.62 | 0.611 | 0.611 | 0.611 | 0.612 | 0.611 | 0.75 |
| SMO | 0.571 | 0.573 | 0.573 | 0.569 | 0.572 | 0.572 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=50

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.627 | 0.687 | 0.687 | 0.683 | 0.687 | 0.686 | 0 |
| J48 binary tree | 0.607 | 0.58 | 0.58 | 0.581 | 0.581 | 0.58 | 0 |
| AODE | 0.609 | 0.504 | 0.504 | 0.504 | 0.505 | 0.504 | 0 |
| Bayes network | 0.615 | 0.58 | 0.58 | 0.587 | 0.587 | 0.578 | 0 |
| Naïve bay | 0.615 | 0.573 | 0.573 | 0.579 | 0.58 | 0.569 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.62 | 0.611 | 0.611 | 0.611 | 0.612 | 0.611 | 0.77 |
| SMO | 0.571 | 0.573 | 0.573 | 0.569 | 0.572 | 0.572 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=60

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.627 | 0.687 | 0.687 | 0.683 | 0.687 | 0.686 | 0 |
| J48 binary tree | 0.607 | 0.58 | 0.58 | 0.581 | 0.581 | 0.58 | 0 |
| AODE | 0.609 | 0.504 | 0.504 | 0.504 | 0.505 | 0.504 | 0 |
| Bayes network | 0.615 | 0.58 | 0.58 | 0.587 | 0.587 | 0.578 | 0 |
| Naïve bay | 0.615 | 0.573 | 0.573 | 0.579 | 0.58 | 0.569 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.62 | 0.611 | 0.611 | 0.611 | 0.612 | 0.611 | 0.75 |
| SMO | 0.571 | 0.573 | 0.573 | 0.569 | 0.572 | 0.572 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

1. Feature Selection: Gain Ratio

K=10

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.616 | 0.679 | 0.679 | 0.675 | 0.68 | 0.678 | 0 |
| J48 binary tree | 0.613 | 0.595 | 0.595 | 0.597 | 0.597 | 0.595 | 0 |
| AODE | 0.609 | 0.504 | 0.504 | 0.504 | 0.505 | 0.504 | 0 |
| Bayes network | 0.615 | 0.58 | 0.58 | 0.587 | 0.587 | 0.578 | 0 |
| Naïve bay | 0.615 | 0.573 | 0.573 | 0.579 | 0.58 | 0.569 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.62 | 0.611 | 0.611 | 0.611 | 0.612 | 0.611 | 0.69 |
| SMO | 0.571 | 0.573 | 0.573 | 0.569 | 0.572 | 0.572 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=20

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.616 | 0.679 | 0.679 | 0.675 | 0.68 | 0.678 | 0 |
| J48 binary tree | 0.613 | 0.595 | 0.595 | 0.597 | 0.597 | 0.595 | 0 |
| AODE | 0.609 | 0.504 | 0.504 | 0.504 | 0.505 | 0.504 | 0 |
| Bayes network | 0.615 | 0.58 | 0.58 | 0.587 | 0.587 | 0.578 | 0 |
| Naïve bay | 0.615 | 0.573 | 0.573 | 0.579 | 0.58 | 0.569 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.62 | 0.611 | 0.611 | 0.611 | 0.612 | 0.611 | 0.69 |
| SMO | 0.571 | 0.573 | 0.573 | 0.569 | 0.572 | 0.572 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=30

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.616 | 0.679 | 0.679 | 0.675 | 0.68 | 0.678 | 0 |
| J48 binary tree | 0.613 | 0.595 | 0.595 | 0.597 | 0.597 | 0.595 | 0 |
| AODE | 0.609 | 0.504 | 0.504 | 0.504 | 0.505 | 0.504 | 0 |
| Bayes network | 0.615 | 0.58 | 0.58 | 0.587 | 0.587 | 0.578 | 0 |
| Naïve bay | 0.615 | 0.573 | 0.573 | 0.579 | 0.58 | 0.569 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.62 | 0.611 | 0.611 | 0.611 | 0.612 | 0.611 | 0.69 |
| SMO | 0.571 | 0.573 | 0.573 | 0.569 | 0.572 | 0.572 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=40

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.616 | 0.679 | 0.679 | 0.675 | 0.68 | 0.678 | 0 |
| J48 binary tree | 0.613 | 0.595 | 0.595 | 0.597 | 0.597 | 0.595 | 0 |
| AODE | 0.609 | 0.504 | 0.504 | 0.504 | 0.505 | 0.504 | 0 |
| Bayes network | 0.615 | 0.58 | 0.58 | 0.587 | 0.587 | 0.578 | 0 |
| Naïve bay | 0.615 | 0.573 | 0.573 | 0.579 | 0.58 | 0.569 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.62 | 0.611 | 0.611 | 0.611 | 0.612 | 0.611 | 0.69 |
| SMO | 0.571 | 0.573 | 0.573 | 0.569 | 0.572 | 0.572 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=50

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.616 | 0.679 | 0.679 | 0.675 | 0.68 | 0.678 | 0 |
| J48 binary tree | 0.613 | 0.595 | 0.595 | 0.597 | 0.597 | 0.595 | 0 |
| AODE | 0.609 | 0.504 | 0.504 | 0.504 | 0.505 | 0.504 | 0 |
| Bayes network | 0.615 | 0.58 | 0.58 | 0.587 | 0.587 | 0.578 | 0 |
| Naïve bay | 0.615 | 0.573 | 0.573 | 0.579 | 0.58 | 0.569 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.62 | 0.611 | 0.611 | 0.611 | 0.612 | 0.611 | 0.69 |
| SMO | 0.571 | 0.573 | 0.573 | 0.569 | 0.572 | 0.572 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=60

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.616 | 0.679 | 0.679 | 0.675 | 0.68 | 0.678 | 0 |
| J48 binary tree | 0.613 | 0.595 | 0.595 | 0.597 | 0.597 | 0.595 | 0 |
| AODE | 0.609 | 0.504 | 0.504 | 0.504 | 0.505 | 0.504 | 0 |
| Bayes network | 0.615 | 0.58 | 0.58 | 0.587 | 0.587 | 0.578 | 0 |
| Naïve bay | 0.615 | 0.573 | 0.573 | 0.579 | 0.58 | 0.569 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.62 | 0.611 | 0.611 | 0.611 | 0.612 | 0.611 | 0.69 |
| SMO | 0.571 | 0.573 | 0.573 | 0.569 | 0.572 | 0.572 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

1. Feature Selection: Information Gain

K=10

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.627 | 0.687 | 0.687 | 0.683 | 0.687 | 0.686 | 0 |
| J48 binary tree | 0.607 | 0.58 | 0.58 | 0.581 | 0.581 | 0.58 | 0 |
| AODE | 0.609 | 0.504 | 0.504 | 0.504 | 0.505 | 0.504 | 0 |
| Bayes network | 0.615 | 0.58 | 0.58 | 0.587 | 0.587 | 0.578 | 0 |
| Naïve bay | 0.615 | 0.573 | 0.573 | 0.579 | 0.58 | 0.569 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.62 | 0.611 | 0.611 | 0.611 | 0.612 | 0.611 | 0.69 |
| SMO | 0.571 | 0.573 | 0.573 | 0.569 | 0.572 | 0.572 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=20

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.627 | 0.687 | 0.687 | 0.683 | 0.687 | 0.686 | 0 |
| J48 binary tree | 0.607 | 0.58 | 0.58 | 0.581 | 0.581 | 0.58 | 0 |
| AODE | 0.609 | 0.504 | 0.504 | 0.504 | 0.505 | 0.504 | 0 |
| Bayes network | 0.615 | 0.58 | 0.58 | 0.587 | 0.587 | 0.578 | 0 |
| Naïve bay | 0.615 | 0.573 | 0.573 | 0.579 | 0.58 | 0.569 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.62 | 0.611 | 0.611 | 0.611 | 0.612 | 0.611 | 0.69 |
| SMO | 0.571 | 0.573 | 0.573 | 0.569 | 0.572 | 0.572 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=30

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.627 | 0.687 | 0.687 | 0.683 | 0.687 | 0.686 | 0 |
| J48 binary tree | 0.607 | 0.58 | 0.58 | 0.581 | 0.581 | 0.58 | 0 |
| AODE | 0.609 | 0.504 | 0.504 | 0.504 | 0.505 | 0.504 | 0 |
| Bayes network | 0.615 | 0.58 | 0.58 | 0.587 | 0.587 | 0.578 | 0 |
| Naïve bay | 0.615 | 0.573 | 0.573 | 0.579 | 0.58 | 0.569 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.62 | 0.611 | 0.611 | 0.611 | 0.612 | 0.611 | 0.69 |
| SMO | 0.571 | 0.573 | 0.573 | 0.569 | 0.572 | 0.572 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=40

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.627 | 0.687 | 0.687 | 0.683 | 0.687 | 0.686 | 0 |
| J48 binary tree | 0.607 | 0.58 | 0.58 | 0.581 | 0.581 | 0.58 | 0 |
| AODE | 0.609 | 0.504 | 0.504 | 0.504 | 0.505 | 0.504 | 0 |
| Bayes network | 0.615 | 0.58 | 0.58 | 0.587 | 0.587 | 0.578 | 0 |
| Naïve bay | 0.615 | 0.573 | 0.573 | 0.579 | 0.58 | 0.569 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.62 | 0.611 | 0.611 | 0.611 | 0.612 | 0.611 | 0.69 |
| SMO | 0.571 | 0.573 | 0.573 | 0.569 | 0.572 | 0.572 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=50

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.627 | 0.687 | 0.687 | 0.683 | 0.687 | 0.686 | 0 |
| J48 binary tree | 0.607 | 0.58 | 0.58 | 0.581 | 0.581 | 0.58 | 0 |
| AODE | 0.609 | 0.504 | 0.504 | 0.504 | 0.505 | 0.504 | 0 |
| Bayes network | 0.615 | 0.58 | 0.58 | 0.587 | 0.587 | 0.578 | 0 |
| Naïve bay | 0.615 | 0.573 | 0.573 | 0.579 | 0.58 | 0.569 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.62 | 0.611 | 0.611 | 0.611 | 0.612 | 0.611 | 0.69 |
| SMO | 0.571 | 0.573 | 0.573 | 0.569 | 0.572 | 0.572 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=60

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.627 | 0.687 | 0.687 | 0.683 | 0.687 | 0.686 | 0 |
| J48 binary tree | 0.607 | 0.58 | 0.58 | 0.581 | 0.581 | 0.58 | 0 |
| AODE | 0.609 | 0.504 | 0.504 | 0.504 | 0.505 | 0.504 | 0 |
| Bayes network | 0.615 | 0.58 | 0.58 | 0.587 | 0.587 | 0.578 | 0 |
| Naïve bay | 0.615 | 0.573 | 0.573 | 0.579 | 0.58 | 0.569 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.62 | 0.611 | 0.611 | 0.611 | 0.612 | 0.611 | 0.63 |
| SMO | 0.571 | 0.573 | 0.573 | 0.569 | 0.572 | 0.572 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

1. Feature Selection: Relief

K=10

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.612 | 0.672 | 0.672 | 0.667 | 0.672 | 0.67 | 0 |
| J48 binary tree | 0.589 | 0.595 | 0.595 | 0.595 | 0.596 | 0.596 | 0 |
| AODE | 0.609 | 0.504 | 0.504 | 0.504 | 0.505 | 0.504 | 0 |
| Bayes network | 0.615 | 0.58 | 0.58 | 0.587 | 0.587 | 0.578 | 0 |
| Naïve bay | 0.615 | 0.573 | 0.573 | 0.579 | 0.58 | 0.569 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.62 | 0.611 | 0.611 | 0.611 | 0.612 | 0.611 | 0.71 |
| SMO | 0.571 | 0.573 | 0.573 | 0.569 | 0.572 | 0.572 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=20

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.612 | 0.672 | 0.672 | 0.667 | 0.672 | 0.67 | 0 |
| J48 binary tree | 0.589 | 0.595 | 0.595 | 0.595 | 0.596 | 0.596 | 0 |
| AODE | 0.609 | 0.504 | 0.504 | 0.504 | 0.505 | 0.504 | 0 |
| Bayes network | 0.615 | 0.58 | 0.58 | 0.587 | 0.587 | 0.578 | 0 |
| Naïve bay | 0.615 | 0.573 | 0.573 | 0.579 | 0.58 | 0.569 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.62 | 0.611 | 0.611 | 0.611 | 0.612 | 0.611 | 0.71 |
| SMO | 0.571 | 0.573 | 0.573 | 0.569 | 0.572 | 0.572 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=30

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.612 | 0.672 | 0.672 | 0.667 | 0.672 | 0.67 | 0 |
| J48 binary tree | 0.589 | 0.595 | 0.595 | 0.595 | 0.596 | 0.596 | 0 |
| AODE | 0.609 | 0.504 | 0.504 | 0.504 | 0.505 | 0.504 | 0 |
| Bayes network | 0.615 | 0.58 | 0.58 | 0.587 | 0.587 | 0.578 | 0 |
| Naïve bay | 0.615 | 0.573 | 0.573 | 0.579 | 0.58 | 0.569 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.62 | 0.611 | 0.611 | 0.611 | 0.612 | 0.611 | 0.71 |
| SMO | 0.571 | 0.573 | 0.573 | 0.569 | 0.572 | 0.572 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=40

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.612 | 0.672 | 0.672 | 0.667 | 0.672 | 0.67 | 0 |
| J48 binary tree | 0.589 | 0.595 | 0.595 | 0.595 | 0.596 | 0.596 | 0 |
| AODE | 0.609 | 0.504 | 0.504 | 0.504 | 0.505 | 0.504 | 0 |
| Bayes network | 0.615 | 0.58 | 0.58 | 0.587 | 0.587 | 0.578 | 0 |
| Naïve bay | 0.615 | 0.573 | 0.573 | 0.579 | 0.58 | 0.569 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.62 | 0.611 | 0.611 | 0.611 | 0.612 | 0.611 | 0.71 |
| SMO | 0.571 | 0.573 | 0.573 | 0.569 | 0.572 | 0.572 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=50

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.612 | 0.672 | 0.672 | 0.667 | 0.672 | 0.67 | 0 |
| J48 binary tree | 0.589 | 0.595 | 0.595 | 0.595 | 0.596 | 0.596 | 0 |
| AODE | 0.609 | 0.504 | 0.504 | 0.504 | 0.505 | 0.504 | 0 |
| Bayes network | 0.615 | 0.58 | 0.58 | 0.587 | 0.587 | 0.578 | 0 |
| Naïve bay | 0.615 | 0.573 | 0.573 | 0.579 | 0.58 | 0.569 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.62 | 0.611 | 0.611 | 0.611 | 0.612 | 0.611 | 0.71 |
| SMO | 0.571 | 0.573 | 0.573 | 0.569 | 0.572 | 0.572 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=60

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.612 | 0.672 | 0.672 | 0.667 | 0.672 | 0.67 | 0 |
| J48 binary tree | 0.589 | 0.595 | 0.595 | 0.595 | 0.596 | 0.596 | 0 |
| AODE | 0.609 | 0.504 | 0.504 | 0.504 | 0.505 | 0.504 | 0 |
| Bayes network | 0.615 | 0.58 | 0.58 | 0.587 | 0.587 | 0.578 | 0 |
| Naïve bay | 0.615 | 0.573 | 0.573 | 0.579 | 0.58 | 0.569 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.62 | 0.611 | 0.611 | 0.611 | 0.612 | 0.611 | 0.71 |
| SMO | 0.571 | 0.573 | 0.573 | 0.569 | 0.572 | 0.572 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |