Feature Descriptor: CLBP

1. Feature Selection: CFS

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.442 | 0.466 | 0.466 | 0.465 | 0.466 | 0.466 | 0 |
| J48 binary tree | 0.579 | 0.588 | 0.588 | 0.587 | 0.588 | 0.588 | 0 |
| AODE | 0.721 | 0.656 | 0.656 | 0.654 | 0.565 | 0.565 | 0 |
| Bayes network | 0.777 | 0.71 | 0.71 | 0.711 | 0.711 | 0.71 | 0 |
| Naïve bay | 0.774 | 0.71 | 0.71 | 0.711 | 0.711 | 0.71 | 0 |
| SVM | 0.508 | 0.527 | 0.527 | 0.489 | 0.752 | 0.372 | 0 |
| Logistic | 0.601 | 0.55 | 0.55 | 0.549 | 0.55 | 0.55 | 0 |
| SMO | 0.594 | 0.595 | 0.595 | 0.592 | 0.595 | 0.595 | 0 |
| Muti layer | 0.676 | 0.641 | 0.641 | 0.64 | 0.641 | 0.641 | 13.37 |

1. Feature Selection: Chi-Square

K=10

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.4 | 0.42 | 0.42 | 0.418 | 0.42 | 0.42 | 0 |
| J48 binary tree | 0.607 | 0.565 | 0.565 | 0.572 | 0.572 | 0.561 | 0 |
| AODE | 0.627 | 0.557 | 0.557 | 0.555 | 0.557 | 0.557 | 0 |
| Bayes network | 0.548 | 0.511 | 0.511 | 0.512 | 0.513 | 0.512 | 0 |
| Naïve bay | 0.551 | 0.542 | 0.542 | 0.542 | 0.543 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.576 | 0.534 | 0.534 | 0.534 | 0.535 | 0.534 | 0.15 |
| SMO | 0.533 | 0.534 | 0.534 | 0.531 | 0.534 | 0.534 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=20

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.4 | 0.42 | 0.42 | 0.418 | 0.42 | 0.42 | 0 |
| J48 binary tree | 0.607 | 0.565 | 0.565 | 0.572 | 0.572 | 0.561 | 0 |
| AODE | 0.627 | 0.557 | 0.557 | 0.555 | 0.557 | 0.557 | 0 |
| Bayes network | 0.548 | 0.511 | 0.511 | 0.512 | 0.513 | 0.512 | 0 |
| Naïve bay | 0.551 | 0.542 | 0.542 | 0.542 | 0.543 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.576 | 0.534 | 0.534 | 0.534 | 0.535 | 0.534 | 0.15 |
| SMO | 0.533 | 0.534 | 0.534 | 0.531 | 0.534 | 0.534 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=30

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.4 | 0.42 | 0.42 | 0.418 | 0.42 | 0.42 | 0 |
| J48 binary tree | 0.607 | 0.565 | 0.565 | 0.572 | 0.572 | 0.561 | 0 |
| AODE | 0.627 | 0.557 | 0.557 | 0.555 | 0.557 | 0.557 | 0 |
| Bayes network | 0.548 | 0.511 | 0.511 | 0.512 | 0.513 | 0.512 | 0 |
| Naïve bay | 0.551 | 0.542 | 0.542 | 0.542 | 0.543 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.576 | 0.534 | 0.534 | 0.534 | 0.535 | 0.534 | 0.15 |
| SMO | 0.533 | 0.534 | 0.534 | 0.531 | 0.534 | 0.534 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=40

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.4 | 0.42 | 0.42 | 0.418 | 0.42 | 0.42 | 0 |
| J48 binary tree | 0.607 | 0.565 | 0.565 | 0.572 | 0.572 | 0.561 | 0 |
| AODE | 0.627 | 0.557 | 0.557 | 0.555 | 0.557 | 0.557 | 0 |
| Bayes network | 0.548 | 0.511 | 0.511 | 0.512 | 0.513 | 0.512 | 0 |
| Naïve bay | 0.551 | 0.542 | 0.542 | 0.542 | 0.543 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.576 | 0.534 | 0.534 | 0.534 | 0.535 | 0.534 | 0.15 |
| SMO | 0.533 | 0.534 | 0.534 | 0.531 | 0.534 | 0.534 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=50

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.4 | 0.42 | 0.42 | 0.418 | 0.42 | 0.42 | 0 |
| J48 binary tree | 0.607 | 0.565 | 0.565 | 0.572 | 0.572 | 0.561 | 0 |
| AODE | 0.627 | 0.557 | 0.557 | 0.555 | 0.557 | 0.557 | 0 |
| Bayes network | 0.548 | 0.511 | 0.511 | 0.512 | 0.513 | 0.512 | 0 |
| Naïve bay | 0.551 | 0.542 | 0.542 | 0.542 | 0.543 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.576 | 0.534 | 0.534 | 0.534 | 0.535 | 0.534 | 0.15 |
| SMO | 0.533 | 0.534 | 0.534 | 0.531 | 0.534 | 0.534 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=60

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.4 | 0.42 | 0.42 | 0.418 | 0.42 | 0.42 | 0 |
| J48 binary tree | 0.607 | 0.565 | 0.565 | 0.572 | 0.572 | 0.561 | 0 |
| AODE | 0.627 | 0.557 | 0.557 | 0.555 | 0.557 | 0.557 | 0 |
| Bayes network | 0.548 | 0.511 | 0.511 | 0.512 | 0.513 | 0.512 | 0 |
| Naïve bay | 0.551 | 0.542 | 0.542 | 0.542 | 0.543 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.576 | 0.534 | 0.534 | 0.534 | 0.535 | 0.534 | 0.15 |
| SMO | 0.533 | 0.534 | 0.534 | 0.531 | 0.534 | 0.534 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

1. Feature Selection: Gain Ratio

K=10

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.42 | 0.435 | 0.435 | 0.433 | 0.435 | 0.435 | 0 |
| J48 binary tree | 0.663 | 0.618 | 0.618 | 0.623 | 0.623 | 0.617 | 0 |
| AODE | 0.627 | 0.557 | 0.557 | 0.555 | 0.557 | 0.557 | 0 |
| Bayes network | 0.548 | 0.511 | 0.511 | 0.512 | 0.513 | 0.512 | 0 |
| Naïve bay | 0.551 | 0.542 | 0.542 | 0.542 | 0.543 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.576 | 0.534 | 0.534 | 0.534 | 0.535 | 0.534 | 0.14 |
| SMO | 0.533 | 0.534 | 0.534 | 0.531 | 0.534 | 0.534 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=20

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.42 | 0.435 | 0.435 | 0.433 | 0.435 | 0.435 | 0 |
| J48 binary tree | 0.663 | 0.618 | 0.618 | 0.623 | 0.623 | 0.617 | 0 |
| AODE | 0.627 | 0.557 | 0.557 | 0.555 | 0.557 | 0.557 | 0 |
| Bayes network | 0.548 | 0.511 | 0.511 | 0.512 | 0.513 | 0.512 | 0 |
| Naïve bay | 0.551 | 0.542 | 0.542 | 0.542 | 0.543 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.576 | 0.534 | 0.534 | 0.534 | 0.535 | 0.534 | 0.14 |
| SMO | 0.533 | 0.534 | 0.534 | 0.531 | 0.534 | 0.534 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=30

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.42 | 0.435 | 0.435 | 0.433 | 0.435 | 0.435 | 0 |
| J48 binary tree | 0.663 | 0.618 | 0.618 | 0.623 | 0.623 | 0.617 | 0 |
| AODE | 0.627 | 0.557 | 0.557 | 0.555 | 0.557 | 0.557 | 0 |
| Bayes network | 0.548 | 0.511 | 0.511 | 0.512 | 0.513 | 0.512 | 0 |
| Naïve bay | 0.551 | 0.542 | 0.542 | 0.542 | 0.543 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.576 | 0.534 | 0.534 | 0.534 | 0.535 | 0.534 | 0.14 |
| SMO | 0.533 | 0.534 | 0.534 | 0.531 | 0.534 | 0.534 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=40

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.42 | 0.435 | 0.435 | 0.433 | 0.435 | 0.435 | 0 |
| J48 binary tree | 0.663 | 0.618 | 0.618 | 0.623 | 0.623 | 0.617 | 0 |
| AODE | 0.627 | 0.557 | 0.557 | 0.555 | 0.557 | 0.557 | 0 |
| Bayes network | 0.548 | 0.511 | 0.511 | 0.512 | 0.513 | 0.512 | 0 |
| Naïve bay | 0.551 | 0.542 | 0.542 | 0.542 | 0.543 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.576 | 0.534 | 0.534 | 0.534 | 0.535 | 0.534 | 0.14 |
| SMO | 0.533 | 0.534 | 0.534 | 0.531 | 0.534 | 0.534 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=50

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.42 | 0.435 | 0.435 | 0.433 | 0.435 | 0.435 | 0 |
| J48 binary tree | 0.663 | 0.618 | 0.618 | 0.623 | 0.623 | 0.617 | 0 |
| AODE | 0.627 | 0.557 | 0.557 | 0.555 | 0.557 | 0.557 | 0 |
| Bayes network | 0.548 | 0.511 | 0.511 | 0.512 | 0.513 | 0.512 | 0 |
| Naïve bay | 0.551 | 0.542 | 0.542 | 0.542 | 0.543 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.576 | 0.534 | 0.534 | 0.534 | 0.535 | 0.534 | 0.14 |
| SMO | 0.533 | 0.534 | 0.534 | 0.531 | 0.534 | 0.534 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=60

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.42 | 0.435 | 0.435 | 0.433 | 0.435 | 0.435 | 0 |
| J48 binary tree | 0.663 | 0.618 | 0.618 | 0.623 | 0.623 | 0.617 | 0 |
| AODE | 0.627 | 0.557 | 0.557 | 0.555 | 0.557 | 0.557 | 0 |
| Bayes network | 0.548 | 0.511 | 0.511 | 0.512 | 0.513 | 0.512 | 0 |
| Naïve bay | 0.551 | 0.542 | 0.542 | 0.542 | 0.543 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.576 | 0.534 | 0.534 | 0.534 | 0.535 | 0.534 | 0.09 |
| SMO | 0.533 | 0.534 | 0.534 | 0.531 | 0.534 | 0.534 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

1. Feature Selection: Information Gain

K=10

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.42 | 0.435 | 0.435 | 0.433 | 0.435 | 0.435 | 0 |
| J48 binary tree | 0.601 | 0.573 | 0.573 | 0.578 | 0.578 | 0.57 | 0 |
| AODE | 0.627 | 0.557 | 0.557 | 0.555 | 0.557 | 0.557 | 0 |
| Bayes network | 0.548 | 0.511 | 0.511 | 0.512 | 0.513 | 0.512 | 0 |
| Naïve bay | 0.551 | 0.542 | 0.542 | 0.542 | 0.543 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.576 | 0.534 | 0.534 | 0.534 | 0.535 | 0.534 | 0.15 |
| SMO | 0.533 | 0.534 | 0.534 | 0.531 | 0.534 | 0.534 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=20

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.42 | 0.435 | 0.435 | 0.433 | 0.435 | 0.435 | 0 |
| J48 binary tree | 0.601 | 0.573 | 0.573 | 0.578 | 0.578 | 0.57 | 0 |
| AODE | 0.627 | 0.557 | 0.557 | 0.555 | 0.557 | 0.557 | 0 |
| Bayes network | 0.548 | 0.511 | 0.511 | 0.512 | 0.513 | 0.512 | 0 |
| Naïve bay | 0.551 | 0.542 | 0.542 | 0.542 | 0.543 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.576 | 0.534 | 0.534 | 0.534 | 0.535 | 0.534 | 0.15 |
| SMO | 0.533 | 0.534 | 0.534 | 0.531 | 0.534 | 0.534 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=30

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.42 | 0.435 | 0.435 | 0.433 | 0.435 | 0.435 | 0 |
| J48 binary tree | 0.601 | 0.573 | 0.573 | 0.578 | 0.578 | 0.57 | 0 |
| AODE | 0.627 | 0.557 | 0.557 | 0.555 | 0.557 | 0.557 | 0 |
| Bayes network | 0.548 | 0.511 | 0.511 | 0.512 | 0.513 | 0.512 | 0 |
| Naïve bay | 0.551 | 0.542 | 0.542 | 0.542 | 0.543 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.576 | 0.534 | 0.534 | 0.534 | 0.535 | 0.534 | 0.15 |
| SMO | 0.533 | 0.534 | 0.534 | 0.531 | 0.534 | 0.534 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=40

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.42 | 0.435 | 0.435 | 0.433 | 0.435 | 0.435 | 0 |
| J48 binary tree | 0.601 | 0.573 | 0.573 | 0.578 | 0.578 | 0.57 | 0 |
| AODE | 0.627 | 0.557 | 0.557 | 0.555 | 0.557 | 0.557 | 0 |
| Bayes network | 0.548 | 0.511 | 0.511 | 0.512 | 0.513 | 0.512 | 0 |
| Naïve bay | 0.551 | 0.542 | 0.542 | 0.542 | 0.543 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.576 | 0.534 | 0.534 | 0.534 | 0.535 | 0.534 | 0.15 |
| SMO | 0.533 | 0.534 | 0.534 | 0.531 | 0.534 | 0.534 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=50

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.42 | 0.435 | 0.435 | 0.433 | 0.435 | 0.435 | 0 |
| J48 binary tree | 0.601 | 0.573 | 0.573 | 0.578 | 0.578 | 0.57 | 0 |
| AODE | 0.627 | 0.557 | 0.557 | 0.555 | 0.557 | 0.557 | 0 |
| Bayes network | 0.548 | 0.511 | 0.511 | 0.512 | 0.513 | 0.512 | 0 |
| Naïve bay | 0.551 | 0.542 | 0.542 | 0.542 | 0.543 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.576 | 0.534 | 0.534 | 0.534 | 0.535 | 0.534 | 0.15 |
| SMO | 0.533 | 0.534 | 0.534 | 0.531 | 0.534 | 0.534 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=60

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.42 | 0.435 | 0.435 | 0.433 | 0.435 | 0.435 | 0 |
| J48 binary tree | 0.601 | 0.573 | 0.573 | 0.578 | 0.578 | 0.57 | 0 |
| AODE | 0.627 | 0.557 | 0.557 | 0.555 | 0.557 | 0.557 | 0 |
| Bayes network | 0.548 | 0.511 | 0.511 | 0.512 | 0.513 | 0.512 | 0 |
| Naïve bay | 0.551 | 0.542 | 0.542 | 0.542 | 0.543 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.576 | 0.534 | 0.534 | 0.534 | 0.535 | 0.534 | 0.15 |
| SMO | 0.533 | 0.534 | 0.534 | 0.531 | 0.534 | 0.534 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

1. Feature Selection: Relief

K=10

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.394 | 0.42 | 0.42 | 0.418 | 0.42 | 0.42 | 0 |
| J48 binary tree | 0.578 | 0.557 | 0.557 | 0.564 | 0.564 | 0.554 | 0 |
| AODE | 0.627 | 0.557 | 0.557 | 0.555 | 0.557 | 0.557 | 0 |
| Bayes network | 0.548 | 0.511 | 0.511 | 0.512 | 0.513 | 0.512 | 0 |
| Naïve bay | 0.551 | 0.542 | 0.542 | 0.542 | 0.543 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.576 | 0.534 | 0.534 | 0.534 | 0.535 | 0.534 | 0.11 |
| SMO | 0.533 | 0.534 | 0.534 | 0.531 | 0.534 | 0.534 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=20

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.394 | 0.42 | 0.42 | 0.418 | 0.42 | 0.42 | 0 |
| J48 binary tree | 0.578 | 0.557 | 0.557 | 0.564 | 0.564 | 0.554 | 0 |
| AODE | 0.627 | 0.557 | 0.557 | 0.555 | 0.557 | 0.557 | 0 |
| Bayes network | 0.548 | 0.511 | 0.511 | 0.512 | 0.513 | 0.512 | 0 |
| Naïve bay | 0.551 | 0.542 | 0.542 | 0.542 | 0.543 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.576 | 0.534 | 0.534 | 0.534 | 0.535 | 0.534 | 0.11 |
| SMO | 0.533 | 0.534 | 0.534 | 0.531 | 0.534 | 0.534 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=30

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.394 | 0.42 | 0.42 | 0.418 | 0.42 | 0.42 | 0 |
| J48 binary tree | 0.578 | 0.557 | 0.557 | 0.564 | 0.564 | 0.554 | 0 |
| AODE | 0.627 | 0.557 | 0.557 | 0.555 | 0.557 | 0.557 | 0 |
| Bayes network | 0.548 | 0.511 | 0.511 | 0.512 | 0.513 | 0.512 | 0 |
| Naïve bay | 0.551 | 0.542 | 0.542 | 0.542 | 0.543 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.576 | 0.534 | 0.534 | 0.534 | 0.535 | 0.534 | 0.11 |
| SMO | 0.533 | 0.534 | 0.534 | 0.531 | 0.534 | 0.534 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=40

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.394 | 0.42 | 0.42 | 0.418 | 0.42 | 0.42 | 0 |
| J48 binary tree | 0.578 | 0.557 | 0.557 | 0.564 | 0.564 | 0.554 | 0 |
| AODE | 0.627 | 0.557 | 0.557 | 0.555 | 0.557 | 0.557 | 0 |
| Bayes network | 0.548 | 0.511 | 0.511 | 0.512 | 0.513 | 0.512 | 0 |
| Naïve bay | 0.551 | 0.542 | 0.542 | 0.542 | 0.543 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.576 | 0.534 | 0.534 | 0.534 | 0.535 | 0.534 | 0.11 |
| SMO | 0.533 | 0.534 | 0.534 | 0.531 | 0.534 | 0.534 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=50

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.394 | 0.42 | 0.42 | 0.418 | 0.42 | 0.42 | 0 |
| J48 binary tree | 0.578 | 0.557 | 0.557 | 0.564 | 0.564 | 0.554 | 0 |
| AODE | 0.627 | 0.557 | 0.557 | 0.555 | 0.557 | 0.557 | 0 |
| Bayes network | 0.548 | 0.511 | 0.511 | 0.512 | 0.513 | 0.512 | 0 |
| Naïve bay | 0.551 | 0.542 | 0.542 | 0.542 | 0.543 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.576 | 0.534 | 0.534 | 0.534 | 0.535 | 0.534 | 0.11 |
| SMO | 0.533 | 0.534 | 0.534 | 0.531 | 0.534 | 0.534 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=60

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.394 | 0.42 | 0.42 | 0.418 | 0.42 | 0.42 | 0 |
| J48 binary tree | 0.578 | 0.557 | 0.557 | 0.564 | 0.564 | 0.554 | 0 |
| AODE | 0.627 | 0.557 | 0.557 | 0.555 | 0.557 | 0.557 | 0 |
| Bayes network | 0.548 | 0.511 | 0.511 | 0.512 | 0.513 | 0.512 | 0 |
| Naïve bay | 0.551 | 0.542 | 0.542 | 0.542 | 0.543 | 0.542 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic | 0.576 | 0.534 | 0.534 | 0.534 | 0.535 | 0.534 | 0.11 |
| SMO | 0.533 | 0.534 | 0.534 | 0.531 | 0.534 | 0.534 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |