Feature Descriptor: LBP

1. Feature Selection: CFS

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.472 | 0.489 | 0.489 | 0.492 | 0.491 | 0.487 | 0 |
| J48 binary tree | 0.656 | 0.672 | 0.672 | 0.67 | 0.672 | 0.672 | 0 |
| AODE | 0.817 | 0.748 | 0.748 | 0.746 | 0.748 | 0.748 | 0 |
| Bayes network | 0.837 | 0.756 | 0.756 | 0.753 | 0.756 | 0.755 | 0 |
| Naïve bay | 0.836 | 0.756 | 0.756 | 0.752 | 0.757 | 0.755 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 1 |
| Logistic | 0.701 | 0.595 | 0.595 | 0.595 | 0.596 | 0.596 | 1 |
| SMO | 0.61 | 0.611 | 0.611 | 0.61 | 0.611 | 0.611 | 1 |
| Muti layer | 0.697 | 0.656 | 0.656 | 0.653 | 0.656 | 0.655 | 27.09 |

1. Feature Selection: Chi-Square

K=10

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.425 | 0.427 | 0.427 | 0.423 | 0.427 | 0.426 | 0 |
| J48 binary tree | 0.555 | 0.534 | 0.534 | 0.538 | 0.537 | 0.533 | 0 |
| AODE | 0.566 | 0.534 | 0.534 | 0.532 | 0.532 | 0.524 | 0.17 |
| Bayes network | 0.571 | 0.511 | 0.511 | 0.502 | 0.508 | 0.504 | 0 |
| Naïve bay | 0.56 | 0.504 | 0.504 | 0.49 | 0.497 | 0.487 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.25 |
| Logistic | 0.557 | 0.504 | 0.504 | 0.408 | 0.502 | 0.501 | 3.26 |
| SMO | 0.494 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=20

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.425 | 0.427 | 0.427 | 0.423 | 0.427 | 0.426 | 0 |
| J48 binary tree | 0.555 | 0.534 | 0.534 | 0.538 | 0.537 | 0.533 | 0 |
| AODE | 0.566 | 0.534 | 0.534 | 0.532 | 0.532 | 0.524 | 0.17 |
| Bayes network | 0.571 | 0.511 | 0.511 | 0.502 | 0.508 | 0.504 | 0 |
| Naïve bay | 0.56 | 0.504 | 0.504 | 0.49 | 0.497 | 0.487 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.25 |
| Logistic | 0.557 | 0.504 | 0.504 | 0.408 | 0.502 | 0.501 | 3.26 |
| SMO | 0.494 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=30

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.425 | 0.427 | 0.427 | 0.423 | 0.427 | 0.426 | 0 |
| J48 binary tree | 0.555 | 0.534 | 0.534 | 0.538 | 0.537 | 0.533 | 0 |
| AODE | 0.566 | 0.534 | 0.534 | 0.532 | 0.532 | 0.524 | 0.17 |
| Bayes network | 0.571 | 0.511 | 0.511 | 0.502 | 0.508 | 0.504 | 0 |
| Naïve bay | 0.56 | 0.504 | 0.504 | 0.49 | 0.497 | 0.487 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.25 |
| Logistic | 0.557 | 0.504 | 0.504 | 0.408 | 0.502 | 0.501 | 3.26 |
| SMO | 0.494 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=40

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.425 | 0.427 | 0.427 | 0.423 | 0.427 | 0.426 | 0 |
| J48 binary tree | 0.555 | 0.534 | 0.534 | 0.538 | 0.537 | 0.533 | 0 |
| AODE | 0.566 | 0.534 | 0.534 | 0.532 | 0.532 | 0.524 | 0.17 |
| Bayes network | 0.571 | 0.511 | 0.511 | 0.502 | 0.508 | 0.504 | 0 |
| Naïve bay | 0.56 | 0.504 | 0.504 | 0.49 | 0.497 | 0.487 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.25 |
| Logistic | 0.557 | 0.504 | 0.504 | 0.408 | 0.502 | 0.501 | 3.26 |
| SMO | 0.494 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=50

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.425 | 0.427 | 0.427 | 0.423 | 0.427 | 0.426 | 0 |
| J48 binary tree | 0.555 | 0.534 | 0.534 | 0.538 | 0.537 | 0.533 | 0 |
| AODE | 0.566 | 0.534 | 0.534 | 0.532 | 0.532 | 0.524 | 0.17 |
| Bayes network | 0.571 | 0.511 | 0.511 | 0.502 | 0.508 | 0.504 | 0 |
| Naïve bay | 0.56 | 0.504 | 0.504 | 0.49 | 0.497 | 0.487 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.25 |
| Logistic | 0.557 | 0.504 | 0.504 | 0.408 | 0.502 | 0.501 | 3.26 |
| SMO | 0.494 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=60

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.425 | 0.427 | 0.427 | 0.423 | 0.427 | 0.426 | 0 |
| J48 binary tree | 0.555 | 0.534 | 0.534 | 0.538 | 0.537 | 0.533 | 0 |
| AODE | 0.566 | 0.534 | 0.534 | 0.532 | 0.532 | 0.524 | 0.21 |
| Bayes network | 0.571 | 0.511 | 0.511 | 0.502 | 0.508 | 0.504 | 0 |
| Naïve bay | 0.56 | 0.504 | 0.504 | 0.49 | 0.497 | 0.487 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.25 |
| Logistic | 0.557 | 0.504 | 0.504 | 0.408 | 0.502 | 0.501 | 3.26 |
| SMO | 0.494 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

1. Feature Selection: Gain Ratio

K=10

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.429 | 0.435 | 0.435 | 0.432 | 0.434 | 0.435 | 0 |
| J48 binary tree | 0.585 | 0.573 | 0.573 | 0.578 | 0.578 | 0.57 | 0 |
| AODE | 0.566 | 0.534 | 0.534 | 0.523 | 0.532 | 0.524 | 0.26 |
| Bayes network | 0.571 | 0.511 | 0.511 | 0.501 | 0.508 | 0.504 | 0 |
| Naïve bay | 0.56 | 0.504 | 0.504 | 0.49 | 0.497 | 0.487 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.25 |
| Logistic | 0.557 | 0.504 | 0.504 | 0.408 | 0.502 | 0.501 | 4.38 |
| SMO | 0.494 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=20

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.429 | 0.435 | 0.435 | 0.432 | 0.434 | 0.435 | 0 |
| J48 binary tree | 0.585 | 0.573 | 0.573 | 0.578 | 0.578 | 0.57 | 0 |
| AODE | 0.566 | 0.534 | 0.534 | 0.523 | 0.532 | 0.524 | 0.26 |
| Bayes network | 0.571 | 0.511 | 0.511 | 0.501 | 0.508 | 0.504 | 0 |
| Naïve bay | 0.56 | 0.504 | 0.504 | 0.49 | 0.497 | 0.487 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.25 |
| Logistic | 0.557 | 0.504 | 0.504 | 0.408 | 0.502 | 0.501 | 4.38 |
| SMO | 0.494 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=30

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.429 | 0.435 | 0.435 | 0.432 | 0.434 | 0.435 | 0 |
| J48 binary tree | 0.585 | 0.573 | 0.573 | 0.578 | 0.578 | 0.57 | 0 |
| AODE | 0.566 | 0.534 | 0.534 | 0.523 | 0.532 | 0.524 | 0.26 |
| Bayes network | 0.571 | 0.511 | 0.511 | 0.501 | 0.508 | 0.504 | 0 |
| Naïve bay | 0.56 | 0.504 | 0.504 | 0.49 | 0.497 | 0.487 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.25 |
| Logistic | 0.557 | 0.504 | 0.504 | 0.408 | 0.502 | 0.501 | 4.38 |
| SMO | 0.494 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=40

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.429 | 0.435 | 0.435 | 0.432 | 0.434 | 0.435 | 0 |
| J48 binary tree | 0.585 | 0.573 | 0.573 | 0.578 | 0.578 | 0.57 | 0 |
| AODE | 0.566 | 0.534 | 0.534 | 0.523 | 0.532 | 0.524 | 0.26 |
| Bayes network | 0.571 | 0.511 | 0.511 | 0.501 | 0.508 | 0.504 | 0 |
| Naïve bay | 0.56 | 0.504 | 0.504 | 0.49 | 0.497 | 0.487 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.25 |
| Logistic | 0.557 | 0.504 | 0.504 | 0.408 | 0.502 | 0.501 | 4.38 |
| SMO | 0.494 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=50

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.429 | 0.435 | 0.435 | 0.432 | 0.434 | 0.435 | 0 |
| J48 binary tree | 0.585 | 0.573 | 0.573 | 0.578 | 0.578 | 0.57 | 0 |
| AODE | 0.566 | 0.534 | 0.534 | 0.523 | 0.532 | 0.524 | 0.26 |
| Bayes network | 0.571 | 0.511 | 0.511 | 0.501 | 0.508 | 0.504 | 0 |
| Naïve bay | 0.56 | 0.504 | 0.504 | 0.49 | 0.497 | 0.487 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.25 |
| Logistic | 0.557 | 0.504 | 0.504 | 0.408 | 0.502 | 0.501 | 4.38 |
| SMO | 0.494 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=60

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.429 | 0.435 | 0.435 | 0.432 | 0.434 | 0.435 | 0 |
| J48 binary tree | 0.585 | 0.573 | 0.573 | 0.578 | 0.578 | 0.57 | 0 |
| AODE | 0.566 | 0.534 | 0.534 | 0.523 | 0.532 | 0.524 | 0.26 |
| Bayes network | 0.571 | 0.511 | 0.511 | 0.501 | 0.508 | 0.504 | 0 |
| Naïve bay | 0.56 | 0.504 | 0.504 | 0.49 | 0.497 | 0.487 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.25 |
| Logistic | 0.557 | 0.504 | 0.504 | 0.408 | 0.502 | 0.501 | 4.38 |
| SMO | 0.494 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

1. Feature Selection: Information Gain

K=10

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.425 | 0.427 | 0.427 | 0.432 | 0.425 | 0.426 | 0 |
| J48 binary tree | 0.554 | 0.527 | 0.527 | 0.531 | 0.53 | 0.525 | 0 |
| AODE | 0.566 | 0.534 | 0.534 | 0.523 | 0.532 | 0.524 | 0.26 |
| Bayes network | 0.571 | 0.511 | 0.511 | 0.501 | 0.508 | 0.504 | 0 |
| Naïve bay | 0.56 | 0.504 | 0.504 | 0.49 | 0.497 | 0.487 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.25 |
| Logistic | 0.557 | 0.504 | 0.504 | 0.408 | 0.502 | 0.501 | 3.47 |
| SMO | 0.494 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=20

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.425 | 0.427 | 0.427 | 0.432 | 0.425 | 0.426 | 0 |
| J48 binary tree | 0.554 | 0.527 | 0.527 | 0.531 | 0.53 | 0.525 | 0 |
| AODE | 0.566 | 0.534 | 0.534 | 0.523 | 0.532 | 0.524 | 0.26 |
| Bayes network | 0.571 | 0.511 | 0.511 | 0.501 | 0.508 | 0.504 | 0 |
| Naïve bay | 0.56 | 0.504 | 0.504 | 0.49 | 0.497 | 0.487 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.25 |
| Logistic | 0.557 | 0.504 | 0.504 | 0.408 | 0.502 | 0.501 | 3.47 |
| SMO | 0.494 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=30

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.425 | 0.427 | 0.427 | 0.432 | 0.425 | 0.426 | 0 |
| J48 binary tree | 0.554 | 0.527 | 0.527 | 0.531 | 0.53 | 0.525 | 0 |
| AODE | 0.566 | 0.534 | 0.534 | 0.523 | 0.532 | 0.524 | 0.26 |
| Bayes network | 0.571 | 0.511 | 0.511 | 0.501 | 0.508 | 0.504 | 0 |
| Naïve bay | 0.56 | 0.504 | 0.504 | 0.49 | 0.497 | 0.487 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.25 |
| Logistic | 0.557 | 0.504 | 0.504 | 0.408 | 0.502 | 0.501 | 3.47 |
| SMO | 0.494 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=40

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.425 | 0.427 | 0.427 | 0.432 | 0.425 | 0.426 | 0 |
| J48 binary tree | 0.554 | 0.527 | 0.527 | 0.531 | 0.53 | 0.525 | 0 |
| AODE | 0.566 | 0.534 | 0.534 | 0.523 | 0.532 | 0.524 | 0.26 |
| Bayes network | 0.571 | 0.511 | 0.511 | 0.501 | 0.508 | 0.504 | 0 |
| Naïve bay | 0.56 | 0.504 | 0.504 | 0.49 | 0.497 | 0.487 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.25 |
| Logistic | 0.557 | 0.504 | 0.504 | 0.408 | 0.502 | 0.501 | 3.47 |
| SMO | 0.494 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=50

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.425 | 0.427 | 0.427 | 0.432 | 0.425 | 0.426 | 0 |
| J48 binary tree | 0.554 | 0.527 | 0.527 | 0.531 | 0.53 | 0.525 | 0 |
| AODE | 0.566 | 0.534 | 0.534 | 0.523 | 0.532 | 0.524 | 0.26 |
| Bayes network | 0.571 | 0.511 | 0.511 | 0.501 | 0.508 | 0.504 | 0 |
| Naïve bay | 0.56 | 0.504 | 0.504 | 0.49 | 0.497 | 0.487 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.25 |
| Logistic | 0.557 | 0.504 | 0.504 | 0.408 | 0.502 | 0.501 | 3.47 |
| SMO | 0.494 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=60

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.425 | 0.427 | 0.427 | 0.432 | 0.425 | 0.426 | 0 |
| J48 binary tree | 0.554 | 0.527 | 0.527 | 0.531 | 0.53 | 0.525 | 0 |
| AODE | 0.566 | 0.534 | 0.534 | 0.523 | 0.532 | 0.524 | 0.22 |
| Bayes network | 0.571 | 0.511 | 0.511 | 0.501 | 0.508 | 0.504 | 0 |
| Naïve bay | 0.56 | 0.504 | 0.504 | 0.49 | 0.497 | 0.487 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.25 |
| Logistic | 0.557 | 0.504 | 0.504 | 0.408 | 0.502 | 0.501 | 3.62 |
| SMO | 0.494 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

1. Feature Selection: Relief

K=10

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.434 | 0.435 | 0.435 | 0.431 | 0.434 | 0.434 | 0 |
| J48 binary tree | 0.574 | 0.557 | 0.557 | 0.565 | 0.565 | 0.553 | 0 |
| AODE | 0.566 | 0.534 | 0.534 | 0.523 | 0.532 | 0.524 | 0.22 |
| Bayes network | 0.571 | 0.511 | 0.511 | 0.501 | 0.508 | 0.504 | 0 |
| Naïve bay | 0.56 | 0.504 | 0.504 | 0.49 | 0.497 | 0.487 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.25 |
| Logistic | 0.557 | 0.504 | 0.504 | 0.408 | 0.502 | 0.501 | 3.82 |
| SMO | 0.494 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=20

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.434 | 0.435 | 0.435 | 0.431 | 0.434 | 0.434 | 0 |
| J48 binary tree | 0.574 | 0.557 | 0.557 | 0.565 | 0.565 | 0.553 | 0 |
| AODE | 0.566 | 0.534 | 0.534 | 0.523 | 0.532 | 0.524 | 0.22 |
| Bayes network | 0.571 | 0.511 | 0.511 | 0.501 | 0.508 | 0.504 | 0 |
| Naïve bay | 0.56 | 0.504 | 0.504 | 0.49 | 0.497 | 0.487 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.25 |
| Logistic | 0.557 | 0.504 | 0.504 | 0.408 | 0.502 | 0.501 | 3.82 |
| SMO | 0.494 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=30

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.434 | 0.435 | 0.435 | 0.431 | 0.434 | 0.434 | 0 |
| J48 binary tree | 0.574 | 0.557 | 0.557 | 0.565 | 0.565 | 0.553 | 0 |
| AODE | 0.566 | 0.534 | 0.534 | 0.523 | 0.532 | 0.524 | 0.22 |
| Bayes network | 0.571 | 0.511 | 0.511 | 0.501 | 0.508 | 0.504 | 0 |
| Naïve bay | 0.56 | 0.504 | 0.504 | 0.49 | 0.497 | 0.487 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.25 |
| Logistic | 0.557 | 0.504 | 0.504 | 0.408 | 0.502 | 0.501 | 3.82 |
| SMO | 0.494 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=40

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.434 | 0.435 | 0.435 | 0.431 | 0.434 | 0.434 | 0 |
| J48 binary tree | 0.574 | 0.557 | 0.557 | 0.565 | 0.565 | 0.553 | 0 |
| AODE | 0.566 | 0.534 | 0.534 | 0.523 | 0.532 | 0.524 | 0.22 |
| Bayes network | 0.571 | 0.511 | 0.511 | 0.501 | 0.508 | 0.504 | 0 |
| Naïve bay | 0.56 | 0.504 | 0.504 | 0.49 | 0.497 | 0.487 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.25 |
| Logistic | 0.557 | 0.504 | 0.504 | 0.408 | 0.502 | 0.501 | 3.82 |
| SMO | 0.494 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=50

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.434 | 0.435 | 0.435 | 0.431 | 0.434 | 0.434 | 0 |
| J48 binary tree | 0.574 | 0.557 | 0.557 | 0.565 | 0.565 | 0.553 | 0 |
| AODE | 0.566 | 0.534 | 0.534 | 0.523 | 0.532 | 0.524 | 0.22 |
| Bayes network | 0.571 | 0.511 | 0.511 | 0.501 | 0.508 | 0.504 | 0 |
| Naïve bay | 0.56 | 0.504 | 0.504 | 0.49 | 0.497 | 0.487 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.25 |
| Logistic | 0.557 | 0.504 | 0.504 | 0.408 | 0.502 | 0.501 | 3.82 |
| SMO | 0.494 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=60

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.434 | 0.435 | 0.435 | 0.431 | 0.434 | 0.434 | 0 |
| J48 binary tree | 0.574 | 0.557 | 0.557 | 0.565 | 0.565 | 0.553 | 0 |
| AODE | 0.566 | 0.534 | 0.534 | 0.523 | 0.532 | 0.524 | 0.22 |
| Bayes network | 0.571 | 0.511 | 0.511 | 0.501 | 0.508 | 0.504 | 0 |
| Naïve bay | 0.56 | 0.504 | 0.504 | 0.49 | 0.497 | 0.487 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.25 |
| Logistic | 0.557 | 0.504 | 0.504 | 0.408 | 0.502 | 0.501 | 3.82 |
| SMO | 0.494 | 0.496 | 0.496 | 0.491 | 0.494 | 0.494 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |