Feature Descriptor: LBP

1. Feature Selection: CFS

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.625 | 0.58 | 0.58 | 0.581 | 0.581 | 0.58 | 0 |
| J48 binary tree | 0.66 | 0.656 | 0.656 | 0.653 | 0.656 | 0.66 | 0 |
| AODE | 0.896 | 0.809 | 0.809 | 0.807 | 0.809 | 0.809 | 0 |
| Bayes network | 0.912 | 0.832 | 0.832 | 0.832 | 0.832 | 0.832 | 0 |
| Naïve bay | 0.903 | 0.802 | 0.802 | 0.801 | 0.802 | 0.802 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 1 |
| Logistic | 0.904 | 0.84 | 0.84 | 0.844 | 0.847 | 0.839 | 1 |
| SMO | 0.711 | 0.71 | 0.71 | 0.711 | 0.711 | 0.71 | 1 |
| Muti layer | 0.821 | 0.71 | 0.71 | 0.713 | 0.713 | 0.71 | 140 |

1. Feature Selection: Chi-Square

K=10

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.55 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0 |
| J48 binary tree | 0.51 | 0.511 | 0.511 | 0.51 | 0.508 | 0.504 | 0 |
| AODE | 0.582 | 0.55 | 0.55 | 0.55 | 0.549 | 0.549 | 0.15 |
| Bayes network | 0.573 | 0.55 | 0.55 | 0.55 | 0.549 | 0.549 | 0 |
| Naïve bay | 0.574 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.25 |
| Logistic | 0.545 | 0.534 | 0.534 | 0.535 | 0.534 | 0.535 | 3.16 |
| SMO | 0.562 | 0.565 | 0.565 | 0.558 | 0.564 | 0.562 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=20

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.575 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0 |
| J48 binary tree | 0.51 | 0.511 | 0.511 | 0.502 | 0.508 | 0.504 | 0 |
| AODE | 0.582 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0.18 |
| Bayes network | 0.573 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| Naïve bay | 0.574 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.22 |
| Logistic | 0.545 | 0.534 | 0.534 | 0.535 | 0.535 | 0.535 | 3.51 |
| SMO | 0.562 | 0.565 | 0.565 | 0.558 | 0.564 | 0.562 | 0.06 |
| Muti layer |  |  |  |  |  |  |  |

K=30

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.575 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0.01 |
| J48 binary tree | 0.51 | 0.511 | 0.511 | 0.502 | 0.508 | 0.504 | 0.04 |
| AODE | 0.582 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0.17 |
| Bayes network | 0.573 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| Naïve bay | 0.574 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.17 |
| Logistic | 0.545 | 0.534 | 0.534 | 0.535 | 0.535 | 0.535 | 3.23 |
| SMO | 0.562 | 0.565 | 0.565 | 0.558 | 0.564 | 0.562 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=40

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.575 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0.01 |
| J48 binary tree | 0.51 | 0.511 | 0.511 | 0.502 | 0.508 | 0.504 | 0.03 |
| AODE | 0.582 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0.13 |
| Bayes network | 0.573 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| Naïve bay | 0.574 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.16 |
| Logistic | 0.545 | 0.534 | 0.534 | 0.535 | 0.535 | 0.535 | 3.16 |
| SMO | 0.562 | 0.565 | 0.565 | 0.558 | 0.564 | 0.562 | 0.06 |
| Muti layer |  |  |  |  |  |  |  |

K=50

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.575 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0.01 |
| J48 binary tree | 0.51 | 0.511 | 0.511 | 0.502 | 0.508 | 0.504 | 0.02 |
| AODE | 0.582 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0.25 |
| Bayes network | 0.573 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| Naïve bay | 0.574 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.22 |
| Logistic | 0.545 | 0.534 | 0.534 | 0.535 | 0.535 | 0.535 | 3.18 |
| SMO | 0.562 | 0.565 | 0.565 | 0.558 | 0.565 | 0.562 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=60

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.575 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0.01 |
| J48 binary tree | 0.51 | 0.511 | 0.511 | 0.502 | 0.508 | 0.504 | 0.03 |
| AODE | 0.582 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0.16 |
| Bayes network | 0.573 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| Naïve bay | 0.574 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.11 |
| Logistic | 0.545 | 0.534 | 0.534 | 0.535 | 0.535 | 0.535 | 3.18 |
| SMO | 0.562 | 0.565 | 0.565 | 0.558 | 0.564 | 0.562 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

1. Feature Selection: Gain Ratio

K=10

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.575 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0.01 |
| J48 binary tree | 0.526 | 0.504 | 0.504 | 0.496 | 0.501 | 0.499 | 0.02 |
| AODE | 0.582 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0.14 |
| Bayes network | 0.573 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| Naïve bay | 0.574 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.491 | 0.269 | 0.355 | 0.15 |
| Logistic | 0.545 | 0.534 | 0.534 | 0.535 | 0.535 | 0.535 | 2.95 |
| SMO | 0.562 | 0.565 | 0.565 | 0.558 | 0.564 | 0.562 | 0.07 |
| Muti layer |  |  |  |  |  |  |  |

K=20

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.575 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0.1 |
| J48 binary tree | 0.526 | 0.504 | 0.504 | 0.496 | 0.501 | 0.499 | 0.03 |
| AODE | 0.582 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0.16 |
| Bayes network | 0.573 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| Naïve bay | 0.574 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.491 | 0.269 | 0.355 | 0.12 |
| Logistic | 0.545 | 0.534 | 0.534 | 0.535 | 0.535 | 0.535 | 3.61 |
| SMO | 0.562 | 0.565 | 0.565 | 0.558 | 0.564 | 0.562 | 0.06 |
| Muti layer |  |  |  |  |  |  |  |

K=30

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.575 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0.1 |
| J48 binary tree | 0.526 | 0.504 | 0.504 | 0.496 | 0.501 | 0.499 | 0.02 |
| AODE | 0.582 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0.16 |
| Bayes network | 0.573 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| Naïve bay | 0.574 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.491 | 0.269 | 0.355 | 0.14 |
| Logistic | 0.545 | 0.534 | 0.534 | 0.535 | 0.535 | 0.535 | 3.12 |
| SMO | 0.562 | 0.565 | 0.565 | 0.558 | 0.564 | 0.562 | 0.08 |
| Muti layer |  |  |  |  |  |  |  |

K=40

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.575 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0.1 |
| J48 binary tree | 0.526 | 0.504 | 0.504 | 0.496 | 0.501 | 0.499 | 0.02 |
| AODE | 0.582 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0.16 |
| Bayes network | 0.573 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| Naïve bay | 0.574 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.491 | 0.269 | 0.355 | 0.15 |
| Logistic | 0.545 | 0.534 | 0.534 | 0.535 | 0.535 | 0.535 | 3.05 |
| SMO | 0.562 | 0.565 | 0.565 | 0.558 | 0.564 | 0.562 | 0.07 |
| Muti layer |  |  |  |  |  |  |  |

K=50

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.575 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0.1 |
| J48 binary tree | 0.526 | 0.504 | 0.504 | 0.496 | 0.501 | 0.499 | 0.03 |
| AODE | 0.582 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0.15 |
| Bayes network | 0.573 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| Naïve bay | 0.574 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.491 | 0.269 | 0.355 | 0.23 |
| Logistic | 0.545 | 0.534 | 0.534 | 0.535 | 0.535 | 0.535 | 3.52 |
| SMO | 0.562 | 0.565 | 0.565 | 0.558 | 0.564 | 0.562 | 0.08 |
| Muti layer |  |  |  |  |  |  |  |

K=60

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.575 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0.1 |
| J48 binary tree | 0.526 | 0.504 | 0.504 | 0.496 | 0.501 | 0.499 | 0.03 |
| AODE | 0.582 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0.15 |
| Bayes network | 0.573 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| Naïve bay | 0.574 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.491 | 0.269 | 0.355 | 0.12 |
| Logistic | 0.545 | 0.534 | 0.534 | 0.535 | 0.535 | 0.535 | 3.18 |
| SMO | 0.562 | 0.565 | 0.565 | 0.558 | 0.564 | 0.562 | 0.06 |
| Muti layer |  |  |  |  |  |  |  |

1. Feature Selection: Information Gain

K=10

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.575 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0.1 |
| J48 binary tree | 0.51 | 0.511 | 0.511 | 0.492 | 0.508 | 0.504 | 0.03 |
| AODE | 0.582 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0.15 |
| Bayes network | 0.573 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| Naïve bay | 0.574 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.491 | 0.269 | 0.355 | 0.11 |
| Logistic | 0.545 | 0.534 | 0.534 | 0.535 | 0.535 | 0.535 | 3.09 |
| SMO | 0.562 | 0.565 | 0.565 | 0.558 | 0.564 | 0.562 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=20

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.575 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0.1 |
| J48 binary tree | 0.51 | 0.511 | 0.511 | 0.502 | 0.508 | 0.504 | 0.03 |
| AODE | 0.582 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0.17 |
| Bayes network | 0.573 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| Naïve bay | 0.574 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.491 | 0.269 | 0.355 | 0.15 |
| Logistic | 0.545 | 0.534 | 0.534 | 0.535 | 0.535 | 0.535 | 3.17 |
| SMO | 0.562 | 0.565 | 0.565 | 0.558 | 0.564 | 0.562 | 0.06 |
| Muti layer |  |  |  |  |  |  |  |

K=30

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.575 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0.1 |
| J48 binary tree | 0.51 | 0.511 | 0.511 | 0.502 | 0.508 | 0.504 | 0.03 |
| AODE | 0.582 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0.25 |
| Bayes network | 0.573 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| Naïve bay | 0.574 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.491 | 0.269 | 0.355 | 0.21 |
| Logistic | 0.545 | 0.534 | 0.534 | 0.535 | 0.535 | 0.535 | 3.31 |
| SMO | 0.562 | 0.565 | 0.565 | 0.558 | 0.564 | 0.562 | 0.23 |
| Muti layer |  |  |  |  |  |  |  |

K=40

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.575 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0.1 |
| J48 binary tree | 0.51 | 0.511 | 0.511 | 0.502 | 0.508 | 0.504 | 0.03 |
| AODE | 0.582 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0.25 |
| Bayes network | 0.573 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| Naïve bay | 0.574 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.491 | 0.269 | 0.355 | 0.12 |
| Logistic | 0.545 | 0.534 | 0.534 | 0.535 | 0.535 | 0.535 | 3.19 |
| SMO | 0.562 | 0.565 | 0.565 | 0.558 | 0.564 | 0.562 | 0.07 |
| Muti layer |  |  |  |  |  |  |  |

K=50

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.575 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0.1 |
| J48 binary tree | 0.51 | 0.511 | 0.511 | 0.502 | 0.508 | 0.504 | 0.03 |
| AODE | 0.582 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0.25 |
| Bayes network | 0.573 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| Naïve bay | 0.574 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.491 | 0.269 | 0.355 | 0.12 |
| Logistic | 0.545 | 0.534 | 0.534 | 0.535 | 0.535 | 0.535 | 3.29 |
| SMO | 0.562 | 0.565 | 0.565 | 0.558 | 0.564 | 0.562 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=60

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.575 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0.1 |
| J48 binary tree | 0.51 | 0.511 | 0.511 | 0.502 | 0.508 | 0.504 | 0.03 |
| AODE | 0.582 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0.25 |
| Bayes network | 0.573 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| Naïve bay | 0.574 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.491 | 0.269 | 0.355 | 0.12 |
| Logistic | 0.545 | 0.534 | 0.534 | 0.535 | 0.535 | 0.535 | 3.29 |
| SMO | 0.562 | 0.565 | 0.565 | 0.558 | 0.564 | 0.562 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

1. Feature Selection: Relief

K=10

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.575 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0.1 |
| J48 binary tree | 0.531 | 0.519 | 0.519 | 0.511 | 0.516 | 0.514 | 0.03 |
| AODE | 0.582 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0.16 |
| Bayes network | 0.573 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| Naïve bay | 0.574 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.491 | 0.269 | 0.355 | 0.16 |
| Logistic | 0.545 | 0.534 | 0.534 | 0.535 | 0.535 | 0.535 | 3.24 |
| SMO | 0.562 | 0.565 | 0.565 | 0.558 | 0.564 | 0.562 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=20

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.575 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0.1 |
| J48 binary tree | 0.531 | 0.519 | 0.519 | 0.511 | 0.516 | 0.514 | 0.03 |
| AODE | 0.582 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0.16 |
| Bayes network | 0.573 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| Naïve bay | 0.574 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.491 | 0.269 | 0.355 | 0.12 |
| Logistic | 0.545 | 0.534 | 0.534 | 0.535 | 0.535 | 0.535 | 3.71 |
| SMO | 0.562 | 0.565 | 0.565 | 0.558 | 0.564 | 0.562 | 0.23 |
| Muti layer |  |  |  |  |  |  |  |

K=30

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.575 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0.1 |
| J48 binary tree | 0.531 | 0.519 | 0.519 | 0.511 | 0.516 | 0.514 | 0.03 |
| AODE | 0.582 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0.16 |
| Bayes network | 0.573 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| Naïve bay | 0.574 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.491 | 0.269 | 0.355 | 0.19 |
| Logistic | 0.545 | 0.534 | 0.534 | 0.535 | 0.535 | 0.535 | 3.29 |
| SMO | 0.562 | 0.565 | 0.565 | 0.558 | 0.564 | 0.562 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=40

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.575 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0.1 |
| J48 binary tree | 0.531 | 0.519 | 0.519 | 0.511 | 0.516 | 0.514 | 0.03 |
| AODE | 0.582 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0.16 |
| Bayes network | 0.573 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| Naïve bay | 0.574 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.491 | 0.269 | 0.355 | 0.15 |
| Logistic | 0.545 | 0.534 | 0.534 | 0.535 | 0.535 | 0.535 | 3.23 |
| SMO | 0.562 | 0.565 | 0.565 | 0.558 | 0.564 | 0.562 | 0.05 |
| Muti layer |  |  |  |  |  |  |  |

K=50

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.575 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0.1 |
| J48 binary tree | 0.531 | 0.519 | 0.519 | 0.511 | 0.516 | 0.514 | 0.03 |
| AODE | 0.582 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0.16 |
| Bayes network | 0.573 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| Naïve bay | 0.574 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.491 | 0.269 | 0.355 | 0.13 |
| Logistic | 0.545 | 0.534 | 0.534 | 0.535 | 0.535 | 0.535 | 3.26 |
| SMO | 0.562 | 0.565 | 0.565 | 0.558 | 0.564 | 0.562 | 0.06 |
| Muti layer |  |  |  |  |  |  |  |

K=60

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
| J48 | 0.575 | 0.55 | 0.55 | 0.55 | 0.551 | 0.55 | 0.1 |
| J48 binary tree | 0.531 | 0.519 | 0.519 | 0.511 | 0.516 | 0.514 | 0.03 |
| AODE | 0.582 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0.16 |
| Bayes network | 0.573 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| Naïve bay | 0.574 | 0.55 | 0.55 | 0.548 | 0.549 | 0.549 | 0 |
| SVM | 0.5 | 0.519 | 0.519 | 0.491 | 0.269 | 0.355 | 0.13 |
| Logistic | 0.545 | 0.534 | 0.534 | 0.535 | 0.535 | 0.535 | 3.31 |
| SMO | 0.562 | 0.565 | 0.565 | 0.558 | 0.564 | 0.562 | 0.07 |
| Muti layer |  |  |  |  |  |  |  |