

## Feature Descriptor: CLBP

### 1. Feature Selection: CFS

| Algorithm       | AUC   | AC    | SN    | SP    | PR    | FM    | TIME |
|-----------------|-------|-------|-------|-------|-------|-------|------|
| J48             | 0.609 | 0.626 | 0.626 | 0.625 | 0.626 | 0.626 | 0    |
| J48 binary tree | 0.616 | 0.649 | 0.649 | 0.651 | 0.651 | 0.649 | 0    |
| AODE            | 0.782 | 0.71  | 0.71  | 0.718 | 0.726 | 0.707 | 0    |
| Bayes network   | 0.882 | 0.748 | 0.748 | 0.751 | 0.752 | 0.748 | 0    |
| Naïve bay       | 0.82  | 0.74  | 0.74  | 0.744 | 0.745 | 0.74  | 0    |
| SVM             | 0.605 | 0.618 | 0.618 | 0.592 | 0.706 | 0.563 | 0    |
| Logistic        | 0.664 | 0.626 | 0.626 | 0.625 | 0.626 | 0.626 | 0    |
| SMO             | 0.703 | 0.702 | 0.702 | 0.704 | 0.704 | 0.702 | 0    |
| Muti layer      | 0.727 | 0.702 | 0.702 | 0.702 | 0.703 | 0.702 | 5.17 |

### 2. Feature Selection: Chi-Square

K=10

| Algorithm       | AUC   | AC    | SN    | SP    | PR    | FM    | TIME |
|-----------------|-------|-------|-------|-------|-------|-------|------|
| J48             | 0.556 | 0.588 | 0.588 | 0.581 | 0.587 | 0.584 | 0    |
| J48 binary tree | 0.571 | 0.565 | 0.565 | 0.564 | 0.565 | 0.565 | 0    |
| AODE            | 0.581 | 0.55  | 0.55  | 0.558 | 0.558 | 0.544 | 0    |
| Bayes network   | 0.617 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0    |
| Naïve bay       | 0.611 | 0.58  | 0.58  | 0.587 | 0.587 | 0.578 | 0    |
| SVM             | 0.5   | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic        | 0.574 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0.7  |
| SMO             | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.05 |
| Muti layer      |       |       |       |       |       |       |      |

K=20

| Algorithm       | AUC   | AC    | SN    | SP    | PR    | FM    | TIME |
|-----------------|-------|-------|-------|-------|-------|-------|------|
| J48             | 0.556 | 0.588 | 0.588 | 0.581 | 0.587 | 0.584 | 0    |
| J48 binary tree | 0.571 | 0.565 | 0.565 | 0.564 | 0.565 | 0.565 | 0    |
| AODE            | 0.581 | 0.55  | 0.55  | 0.558 | 0.558 | 0.544 | 0.04 |
| Bayes network   | 0.617 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0    |
| Naïve bay       | 0.611 | 0.58  | 0.58  | 0.587 | 0.587 | 0.578 | 0    |
| SVM             | 0.5   | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic        | 0.574 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0.69 |
| SMO             | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.05 |
| Muti layer      |       |       |       |       |       |       |      |

K=30

| Algorithm       | AUC   | AC    | SN    | SP    | PR    | FM    | TIME |
|-----------------|-------|-------|-------|-------|-------|-------|------|
| J48             | 0.556 | 0.588 | 0.588 | 0.581 | 0.587 | 0.584 | 0    |
| J48 binary tree | 0.571 | 0.565 | 0.565 | 0.564 | 0.565 | 0.565 | 0    |
| AODE            | 0.581 | 0.55  | 0.55  | 0.558 | 0.558 | 0.544 | 0    |
| Bayes network   | 0.617 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0    |
| Naïve bay       | 0.611 | 0.58  | 0.58  | 0.587 | 0.587 | 0.578 | 0    |
| SVM             | 0.5   | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic        | 0.574 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0.7  |
| SMO             | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.05 |
| Muti layer      |       |       |       |       |       |       |      |

K=40

| Algorithm       | AUC   | AC    | SN    | SP    | PR    | FM    | TIME |
|-----------------|-------|-------|-------|-------|-------|-------|------|
| J48             | 0.556 | 0.588 | 0.588 | 0.581 | 0.587 | 0.584 | 0    |
| J48 binary tree | 0.571 | 0.565 | 0.565 | 0.564 | 0.565 | 0.565 | 0    |
| AODE            | 0.581 | 0.55  | 0.55  | 0.558 | 0.558 | 0.544 | 0    |
| Bayes network   | 0.617 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0    |
| Naïve bay       | 0.611 | 0.58  | 0.58  | 0.587 | 0.587 | 0.578 | 0    |
| SVM             | 0.5   | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic        | 0.574 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0.7  |
| SMO             | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.05 |
| Muti layer      |       |       |       |       |       |       |      |

K=50

| Algorithm       | AUC   | AC    | SN    | SP    | PR    | FM    | TIME |
|-----------------|-------|-------|-------|-------|-------|-------|------|
| J48             | 0.556 | 0.588 | 0.588 | 0.581 | 0.587 | 0.584 | 0    |
| J48 binary tree | 0.571 | 0.565 | 0.565 | 0.564 | 0.565 | 0.565 | 0    |
| AODE            | 0.581 | 0.55  | 0.55  | 0.558 | 0.558 | 0.544 | 0    |
| Bayes network   | 0.617 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0    |
| Naïve bay       | 0.611 | 0.58  | 0.58  | 0.587 | 0.587 | 0.578 | 0    |
| SVM             | 0.5   | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic        | 0.574 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0.7  |
| SMO             | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.05 |
| Muti layer      |       |       |       |       |       |       |      |

K=60

| Algorithm       | AUC   | AC    | SN    | SP    | PR    | FM    | TIME |
|-----------------|-------|-------|-------|-------|-------|-------|------|
| J48             | 0.556 | 0.588 | 0.588 | 0.581 | 0.587 | 0.584 | 0    |
| J48 binary tree | 0.571 | 0.565 | 0.565 | 0.564 | 0.565 | 0.565 | 0    |
| AODE            | 0.581 | 0.55  | 0.55  | 0.558 | 0.558 | 0.544 | 0    |
| Bayes network   | 0.617 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0    |
| Naïve bay       | 0.611 | 0.58  | 0.58  | 0.587 | 0.587 | 0.578 | 0    |
| SVM             | 0.5   | 0.519 | 0.519 | 0.481 | 0.269 | 0.355 | 0.08 |
| Logistic        | 0.574 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0.68 |
| SMO             | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.05 |
| Muti layer      |       |       |       |       |       |       |      |

### 3. Feature Selection: Gain Ratio

K=10

| Algorithm       | AUC   | AC    | SN    | SP    | PR    | FM    | TIME |
|-----------------|-------|-------|-------|-------|-------|-------|------|
| J48             | 0.556 | 0.588 | 0.588 | 0.591 | 0.587 | 0.584 | 0    |
| J48 binary tree | 0.589 | 0.595 | 0.595 | 0.595 | 0.596 | 0.596 | 0    |
| AODE            | 0.581 | 0.55  | 0.55  | 0.548 | 0.55  | 0.544 | 0    |
| Bayes network   | 0.617 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0    |
| Naïve bay       | 0.611 | 0.58  | 0.58  | 0.587 | 0.587 | 0.587 | 0    |
| SVM             | 0.5   | 0.519 | 0.519 | 0.491 | 0.269 | 0.355 | 0    |
| Logistic        | 0.574 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0.67 |
| SMO             | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.07 |
| Muti layer      |       |       |       |       |       |       |      |

K=20

| Algorithm       | AUC   | AC    | SN    | SP    | PR    | FM    | TIME |
|-----------------|-------|-------|-------|-------|-------|-------|------|
| J48             | 0.556 | 0.588 | 0.588 | 0.591 | 0.587 | 0.584 | 0    |
| J48 binary tree | 0.589 | 0.595 | 0.595 | 0.595 | 0.596 | 0.596 | 0    |
| AODE            | 0.581 | 0.55  | 0.55  | 0.548 | 0.55  | 0.544 | 0    |
| Bayes network   | 0.617 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0    |
| Naïve bay       | 0.611 | 0.58  | 0.58  | 0.587 | 0.587 | 0.587 | 0    |
| SVM             | 0.5   | 0.519 | 0.519 | 0.491 | 0.269 | 0.355 | 0    |
| Logistic        | 0.574 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0.67 |
| SMO             | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.07 |
| Muti layer      |       |       |       |       |       |       |      |

K=30

| Algorithm       | AUC   | AC    | SN    | SP    | PR    | FM    | TIME |
|-----------------|-------|-------|-------|-------|-------|-------|------|
| J48             | 0.556 | 0.588 | 0.588 | 0.591 | 0.587 | 0.584 | 0    |
| J48 binary tree | 0.589 | 0.595 | 0.595 | 0.595 | 0.596 | 0.596 | 0    |
| AODE            | 0.581 | 0.55  | 0.55  | 0.548 | 0.55  | 0.544 | 0    |
| Bayes network   | 0.617 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0    |
| Naïve bay       | 0.611 | 0.58  | 0.58  | 0.587 | 0.587 | 0.587 | 0    |
| SVM             | 0.5   | 0.519 | 0.519 | 0.491 | 0.269 | 0.355 | 0    |
| Logistic        | 0.574 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0.67 |
| SMO             | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.07 |
| Muti layer      |       |       |       |       |       |       |      |

K=40

| Algorithm       | AUC   | AC    | SN    | SP    | PR    | FM    | TIME |
|-----------------|-------|-------|-------|-------|-------|-------|------|
| J48             | 0.556 | 0.588 | 0.588 | 0.591 | 0.587 | 0.584 | 0    |
| J48 binary tree | 0.589 | 0.595 | 0.595 | 0.595 | 0.596 | 0.596 | 0    |
| AODE            | 0.581 | 0.55  | 0.55  | 0.548 | 0.55  | 0.544 | 0    |
| Bayes network   | 0.617 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0    |
| Naïve bay       | 0.611 | 0.58  | 0.58  | 0.587 | 0.587 | 0.587 | 0    |
| SVM             | 0.5   | 0.519 | 0.519 | 0.491 | 0.269 | 0.355 | 0    |
| Logistic        | 0.574 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0.67 |
| SMO             | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.07 |
| Muti layer      |       |       |       |       |       |       |      |

K=50

| Algorithm       | AUC   | AC    | SN    | SP    | PR    | FM    | TIME |
|-----------------|-------|-------|-------|-------|-------|-------|------|
| J48             | 0.556 | 0.588 | 0.588 | 0.591 | 0.587 | 0.584 | 0    |
| J48 binary tree | 0.589 | 0.595 | 0.595 | 0.595 | 0.596 | 0.596 | 0    |
| AODE            | 0.581 | 0.55  | 0.55  | 0.548 | 0.558 | 0.544 | 0    |
| Bayes network   | 0.617 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0    |
| Naïve bay       | 0.611 | 0.58  | 0.58  | 0.587 | 0.587 | 0.587 | 0    |
| SVM             | 0.5   | 0.519 | 0.519 | 0.491 | 0.269 | 0.355 | 0    |
| Logistic        | 0.574 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0.67 |
| SMO             | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.07 |
| Muti layer      |       |       |       |       |       |       |      |

K=60

| Algorithm       | AUC   | AC    | SN    | SP    | PR    | FM    | TIME |
|-----------------|-------|-------|-------|-------|-------|-------|------|
| J48             | 0.556 | 0.588 | 0.588 | 0.591 | 0.587 | 0.584 | 0    |
| J48 binary tree | 0.589 | 0.595 | 0.595 | 0.595 | 0.596 | 0.596 | 0    |
| AODE            | 0.581 | 0.55  | 0.55  | 0.548 | 0.558 | 0.544 | 0    |
| Bayes network   | 0.617 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0    |
| Naïve bay       | 0.611 | 0.58  | 0.58  | 0.587 | 0.587 | 0.587 | 0    |
| SVM             | 0.5   | 0.519 | 0.519 | 0.491 | 0.269 | 0.355 | 0    |
| Logistic        | 0.574 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0.67 |
| SMO             | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.07 |
| Muti layer      |       |       |       |       |       |       |      |

#### 4. Feature Selection: Information Gain

K=10

| Algorithm       | AUC   | AC    | SN    | SP    | PR    | FM    | TIME |
|-----------------|-------|-------|-------|-------|-------|-------|------|
| J48             | 0.556 | 0.588 | 0.588 | 0.591 | 0.587 | 0.584 | 0    |
| J48 binary tree | 0.635 | 0.618 | 0.618 | 0.617 | 0.618 | 0.618 | 0    |
| AODE            | 0.581 | 0.55  | 0.55  | 0.548 | 0.558 | 0.544 | 0    |
| Bayes network   | 0.617 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0    |
| Naïve bay       | 0.611 | 0.58  | 0.58  | 0.587 | 0.587 | 0.587 | 0    |
| SVM             | 0.5   | 0.519 | 0.519 | 0.491 | 0.269 | 0.355 | 0    |
| Logistic        | 0.574 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0.58 |
| SMO             | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.07 |
| Muti layer      |       |       |       |       |       |       |      |

K=20

| Algorithm       | AUC   | AC    | SN    | SP    | PR    | FM    | TIME |
|-----------------|-------|-------|-------|-------|-------|-------|------|
| J48             | 0.556 | 0.588 | 0.588 | 0.591 | 0.587 | 0.584 | 0    |
| J48 binary tree | 0.635 | 0.618 | 0.618 | 0.617 | 0.618 | 0.618 | 0    |
| AODE            | 0.581 | 0.55  | 0.55  | 0.548 | 0.558 | 0.544 | 0    |
| Bayes network   | 0.617 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0    |
| Naïve bay       | 0.611 | 0.58  | 0.58  | 0.587 | 0.587 | 0.587 | 0    |
| SVM             | 0.5   | 0.519 | 0.519 | 0.491 | 0.269 | 0.355 | 0    |
| Logistic        | 0.574 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0.58 |
| SMO             | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.07 |
| Muti layer      |       |       |       |       |       |       |      |

K=30

| Algorithm       | AUC   | AC    | SN    | SP    | PR    | FM    | TIME |
|-----------------|-------|-------|-------|-------|-------|-------|------|
| J48             | 0.556 | 0.588 | 0.588 | 0.591 | 0.587 | 0.584 | 0    |
| J48 binary tree | 0.635 | 0.618 | 0.618 | 0.617 | 0.618 | 0.618 | 0    |
| AODE            | 0.581 | 0.55  | 0.55  | 0.548 | 0.558 | 0.544 | 0    |
| Bayes network   | 0.617 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0    |
| Naïve bay       | 0.611 | 0.58  | 0.58  | 0.587 | 0.587 | 0.587 | 0    |
| SVM             | 0.5   | 0.519 | 0.519 | 0.491 | 0.269 | 0.355 | 0    |
| Logistic        | 0.574 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0.58 |
| SMO             | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.07 |
| Muti layer      |       |       |       |       |       |       |      |

K=40

| Algorithm       | AUC   | AC    | SN    | SP    | PR    | FM    | TIME |
|-----------------|-------|-------|-------|-------|-------|-------|------|
| J48             | 0.556 | 0.588 | 0.588 | 0.591 | 0.587 | 0.584 | 0    |
| J48 binary tree | 0.635 | 0.618 | 0.618 | 0.617 | 0.618 | 0.618 | 0    |
| AODE            | 0.581 | 0.55  | 0.55  | 0.548 | 0.558 | 0.544 | 0    |
| Bayes network   | 0.617 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0    |
| Naïve bay       | 0.611 | 0.58  | 0.58  | 0.587 | 0.587 | 0.587 | 0    |
| SVM             | 0.5   | 0.519 | 0.519 | 0.491 | 0.269 | 0.355 | 0    |
| Logistic        | 0.574 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0.58 |
| SMO             | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.07 |
| Muti layer      |       |       |       |       |       |       |      |

K=50

| Algorithm       | AUC   | AC    | SN    | SP    | PR    | FM    | TIME |
|-----------------|-------|-------|-------|-------|-------|-------|------|
| J48             | 0.556 | 0.588 | 0.588 | 0.591 | 0.587 | 0.584 | 0    |
| J48 binary tree | 0.635 | 0.618 | 0.618 | 0.617 | 0.618 | 0.618 | 0    |
| AODE            | 0.581 | 0.55  | 0.55  | 0.548 | 0.558 | 0.544 | 0    |
| Bayes network   | 0.617 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0    |
| Naïve bay       | 0.611 | 0.58  | 0.58  | 0.587 | 0.587 | 0.587 | 0    |
| SVM             | 0.5   | 0.519 | 0.519 | 0.491 | 0.269 | 0.355 | 0    |
| Logistic        | 0.574 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0.58 |
| SMO             | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.07 |
| Muti layer      |       |       |       |       |       |       |      |

K=60

| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
|-----------|-----|----|----|----|----|----|------|
|-----------|-----|----|----|----|----|----|------|

|                 |       |       |       |       |       |       |      |
|-----------------|-------|-------|-------|-------|-------|-------|------|
| J48             | 0.556 | 0.588 | 0.588 | 0.591 | 0.587 | 0.584 | 0    |
| J48 binary tree | 0.635 | 0.618 | 0.618 | 0.617 | 0.618 | 0.618 | 0    |
| AODE            | 0.581 | 0.55  | 0.55  | 0.548 | 0.558 | 0.544 | 0    |
| Bayes network   | 0.617 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0    |
| Naïve bay       | 0.611 | 0.58  | 0.58  | 0.587 | 0.587 | 0.587 | 0    |
| SVM             | 0.5   | 0.519 | 0.519 | 0.491 | 0.269 | 0.355 | 0    |
| Logistic        | 0.574 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0.58 |
| SMO             | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.07 |
| Muti layer      |       |       |       |       |       |       |      |

## 5. Feature Selection: Relief

K=10

| Algorithm       | AUC   | AC    | SN    | SP    | PR    | FM    | TIME |
|-----------------|-------|-------|-------|-------|-------|-------|------|
| J48             | 0.556 | 0.588 | 0.588 | 0.591 | 0.587 | 0.584 | 0    |
| J48 binary tree | 0.524 | 0.534 | 0.534 | 0.535 | 0.535 | 0.535 | 0    |
| AODE            | 0.581 | 0.55  | 0.55  | 0.548 | 0.558 | 0.544 | 0    |
| Bayes network   | 0.617 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0    |
| Naïve bay       | 0.611 | 0.58  | 0.58  | 0.587 | 0.587 | 0.587 | 0    |
| SVM             | 0.5   | 0.519 | 0.519 | 0.491 | 0.269 | 0.355 | 0    |
| Logistic        | 0.574 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0.58 |
| SMO             | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.07 |
| Muti layer      |       |       |       |       |       |       |      |

K=20

| Algorithm       | AUC   | AC    | SN    | SP    | PR    | FM    | TIME |
|-----------------|-------|-------|-------|-------|-------|-------|------|
| J48             | 0.556 | 0.588 | 0.588 | 0.591 | 0.587 | 0.584 | 0    |
| J48 binary tree | 0.524 | 0.534 | 0.534 | 0.535 | 0.535 | 0.535 | 0    |
| AODE            | 0.581 | 0.55  | 0.55  | 0.548 | 0.558 | 0.544 | 0    |
| Bayes network   | 0.617 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0    |
| Naïve bay       | 0.611 | 0.58  | 0.58  | 0.587 | 0.587 | 0.587 | 0    |
| SVM             | 0.5   | 0.519 | 0.519 | 0.491 | 0.269 | 0.355 | 0    |
| Logistic        | 0.574 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0.58 |
| SMO             | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.07 |
| Muti layer      |       |       |       |       |       |       |      |

K=30

| Algorithm       | AUC   | AC    | SN    | SP    | PR    | FM    | TIME |
|-----------------|-------|-------|-------|-------|-------|-------|------|
| J48             | 0.556 | 0.588 | 0.588 | 0.591 | 0.587 | 0.584 | 0    |
| J48 binary tree | 0.524 | 0.534 | 0.534 | 0.535 | 0.535 | 0.535 | 0    |
| AODE            | 0.581 | 0.55  | 0.55  | 0.548 | 0.558 | 0.544 | 0    |
| Bayes network   | 0.617 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0    |
| Naïve bay       | 0.611 | 0.58  | 0.58  | 0.587 | 0.587 | 0.587 | 0    |
| SVM             | 0.5   | 0.519 | 0.519 | 0.491 | 0.269 | 0.355 | 0    |
| Logistic        | 0.574 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0.58 |
| SMO             | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.07 |
| Muti layer      |       |       |       |       |       |       |      |

K=40

| Algorithm       | AUC   | AC    | SN    | SP    | PR    | FM    | TIME |
|-----------------|-------|-------|-------|-------|-------|-------|------|
| J48             | 0.556 | 0.588 | 0.588 | 0.591 | 0.587 | 0.584 | 0    |
| J48 binary tree | 0.524 | 0.534 | 0.534 | 0.535 | 0.535 | 0.535 | 0    |
| AODE            | 0.581 | 0.55  | 0.55  | 0.548 | 0.558 | 0.544 | 0    |
| Bayes network   | 0.617 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0    |
| Naïve bay       | 0.611 | 0.58  | 0.58  | 0.587 | 0.587 | 0.587 | 0    |
| SVM             | 0.5   | 0.519 | 0.519 | 0.491 | 0.269 | 0.355 | 0    |
| Logistic        | 0.574 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0.58 |
| SMO             | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.07 |
| Muti layer      |       |       |       |       |       |       |      |

K=50

| Algorithm       | AUC   | AC    | SN    | SP    | PR    | FM    | TIME |
|-----------------|-------|-------|-------|-------|-------|-------|------|
| J48             | 0.556 | 0.588 | 0.588 | 0.591 | 0.587 | 0.584 | 0    |
| J48 binary tree | 0.524 | 0.534 | 0.534 | 0.535 | 0.535 | 0.535 | 0    |
| AODE            | 0.581 | 0.55  | 0.55  | 0.548 | 0.558 | 0.544 | 0    |
| Bayes network   | 0.617 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0    |
| Naïve bay       | 0.611 | 0.58  | 0.58  | 0.587 | 0.587 | 0.587 | 0    |
| SVM             | 0.5   | 0.519 | 0.519 | 0.491 | 0.269 | 0.355 | 0    |
| Logistic        | 0.574 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0.58 |
| SMO             | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.07 |
| Muti layer      |       |       |       |       |       |       |      |

K=60

| Algorithm | AUC | AC | SN | SP | PR | FM | TIME |
|-----------|-----|----|----|----|----|----|------|
|-----------|-----|----|----|----|----|----|------|



|                 |       |       |       |       |       |       |      |
|-----------------|-------|-------|-------|-------|-------|-------|------|
| J48             | 0.556 | 0.588 | 0.588 | 0.591 | 0.587 | 0.584 | 0    |
| J48 binary tree | 0.524 | 0.534 | 0.534 | 0.535 | 0.535 | 0.535 | 0    |
| AODE            | 0.581 | 0.55  | 0.55  | 0.548 | 0.558 | 0.544 | 0    |
| Bayes network   | 0.617 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0    |
| Naïve bay       | 0.611 | 0.58  | 0.58  | 0.587 | 0.587 | 0.587 | 0    |
| SVM             | 0.5   | 0.519 | 0.519 | 0.491 | 0.269 | 0.355 | 0    |
| Logistic        | 0.574 | 0.573 | 0.573 | 0.576 | 0.576 | 0.572 | 0.58 |
| SMO             | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.534 | 0.07 |
| Muti layer      |       |       |       |       |       |       |      |