**AMP**

Precision

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 特征数量 | 10 | 20 | 30 | 40 | 50 |
| LR | 0.695 | 0.014 | 0.131 | 0.322 | 0.105 |
| RF | 1.000 | 0.322 | 0.557 | 0.322 | 0.625 |
| XGB | 0.922 | 0.002 | 0.770 | 0.556 | 0.770 |
| SVM | 0.557 | 0.064 | 0.006 | 0.006 | 0.002 |

Recall

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 特征数量 | 10 | 20 | 30 | 40 | 50 |
| LR | 0.476 | 0.004 | 0.002 | 0.002 | 0.002 |
| RF | 0.634 | 0.021 | 0.004 | 0.002 | 0.002 |
| XGB | 0.074 | 0.002 | 0.004 | 0.002 | 0.002 |
| SVM | 0.232 | 0.002 | 0.002 | 0.002 | 0.002 |

F1-score

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 特征数量 | 10 | 20 | 30 | 40 | 50 |
| LR | 0.131 | 0.002 | 0.002 | 0.004 | 0.002 |
| RF | 0.322 | 0.037 | 0.010 | 0.004 | 0.002 |
| XGB | 0.160 | 0.002 | 0.010 | 0.004 | 0.002 |
| SVM | 0.232 | 0.000 | 0.002 | 0.002 | 0.002 |

AUPRC

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 特征数量 | 10 | 20 | 30 | 40 | 50 |
| LR | 0.002 | 0.002 | 0.002 | 0.002 | 0.002 |
| RF | 0.027 | 0.002 | 0.002 | 0.002 | 0.002 |
| XGB | 0.084 | 0.002 | 0.002 | 0.002 | 0.002 |
| SVM | 0.002 | 0.002 | 0.002 | 0.002 | 0.002 |

**AUG**

Precision

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 特征数量 | 10 | 20 | 30 | 40 | 50 |
| LR | 0.002 | 0.002 | 0.193 | 0.375 | 0.013 |
| RF | 0.123 | 0.708 | 0.824 | 0.193 | 0.002 |
| XGB | 0.260 | 0.212 | 0.105 | 0.105 | 0.160 |
| SVM | 0.063 | 0.025 | 0.369 | 0.492 | 0.275 |

Recall

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 特征数量 | 10 | 20 | 30 | 40 | 50 |
| LR | 0.002 | 0.006 | 0.004 | 0.002 | 0.002 |
| RF | 0.050 | 0.038 | 0.008 | 0.002 | 0.002 |
| XGB | 0.018 | 0.015 | 0.010 | 0.004 | 0.002 |
| SVM | 0.018 | 0.237 | 0.011 | 0.002 | 0.002 |

F1-score

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 特征数量 | 10 | 20 | 30 | 40 | 50 |
| LR | 0.004 | 0.002 | 0.002 | 0.006 | 0.002 |
| RF | 0.017 | 0.021 | 0.010 | 0.014 | 0.002 |
| XGB | 0.008 | 0.002 | 0.010 | 0.010 | 0.002 |
| SVM | 0.043 | 0.026 | 0.008 | 0.006 | 0.002 |

AUPRC

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 特征数量 | 10 | 20 | 30 | 40 | 50 |
| LR | 0.002 | 0.002 | 0.002 | 0.002 | 0.002 |
| RF | 0.105 | 0.049 | 0.014 | 0.002 | 0.002 |
| XGB | 0.049 | 0.432 | 0.921 | 0.006 | 0.131 |
| SVM | 0.002 | 0.002 | 0.002 | 0.002 | 0.002 |

**AXO**

Precision

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 特征数量 | 10 | 20 | 30 | 40 | 50 |
| LR | 0.007 | 0.007 | 0.002 | 0.011 | 0.011 |
| RF | 0.128 | 0.003 | 0.575 | 0.833 | 0.208 |
| XGB | 0.012 | 0.007 | 0.007 | 0.011 | 0.008 |
| SVM | 0.017 | 0.313 | 0.004 | 0.401 | 0.021 |

Recall

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 特征数量 | 10 | 20 | 30 | 40 | 50 |
| LR | 0.002 | 0.002 | 0.002 | 0.002 | 0.002 |
| RF | 0.010 | 0.008 | 0.008 | 0.002 | 0.002 |
| XGB | 0.002 | 0.014 | 0.004 | 0.064 | 0.012 |
| SVM | 0.039 | 0.002 | 0.002 | 0.002 | 0.002 |

F1-score

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 特征数量 | 10 | 20 | 30 | 40 | 50 |
| LR | 0.002 | 0.002 | 0.002 | 0.002 | 0.002 |
| RF | 0.002 | 0.002 | 0.008 | 0.002 | 0.004 |
| XGB | 0.008 | 0.322 | 0.275 | 0.064 | 0.066 |
| SVM | 0.008 | 0.002 | 0.002 | 0.002 | 0.002 |

AUPRC

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 特征数量 | 10 | 20 | 30 | 40 | 50 |
| LR | 0.678 | 0.002 | 0.002 | 0.002 | 0.002 |
| RF | 0.554 | 0.139 | 0.010 | 0.375 | 0.084 |
| XGB | 0.441 | 0.214 | 0.010 | 0.002 | 0.010 |
| SVM | 0.002 | 0.002 | 0.002 | 0.002 | 0.002 |

**CHL**

Precision

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 特征数量 | 10 | 20 | 30 | 40 | 50 |
| LR | 0.492 | 0.432 | 0.557 | 0.027 | 0.322 |
| RF | 0.275 | 0.131 | 0.131 | 0.014 | 0.049 |
| XGB | 0.232 | 0.998 | 0.020 | 0.002 | 0.001 |
| SVM | 0.049 | 0.160 | 0.014 | 0.002 | 0.006 |

Recall

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 特征数量 | 10 | 20 | 30 | 40 | 50 |
| LR | 0.012 | 0.002 | 0.004 | 0.002 | 0.002 |
| RF | 0.478 | 0.091 | 0.008 | 0.056 | 0.010 |
| XGB | 0.998 | 0.028 | 0.004 | 0.002 | 0.009 |
| SVM | 0.389 | 0.004 | 0.002 | 0.002 | 0.002 |

F1-score

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 特征数量 | 10 | 20 | 30 | 40 | 50 |
| LR | 0.014 | 0.002 | 0.004 | 0.002 | 0.002 |
| RF | 0.432 | 0.020 | 0.004 | 0.002 | 0.002 |
| XGB | 0.232 | 0.014 | 0.004 | 0.002 | 0.002 |
| SVM | 0.557 | 0.004 | 0.002 | 0.002 | 0.002 |

AUPRC

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 特征数量 | 10 | 20 | 30 | 40 | 50 |
| LR | 0.002 | 0.002 | 0.002 | 0.002 | 0.002 |
| RF | 0.002 | 0.002 | 0.002 | 0.002 | 0.002 |
| XGB | 0.010 | 0.002 | 0.002 | 0.002 | 0.002 |
| SVM | 0.002 | 0.002 | 0.002 | 0.002 | 0.002 |

**FIS**

Precision

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 特征数量 | 10 | 20 | 30 | 40 | 50 |
| LR | 0.049 | 0.049 | 0.027 | 0.625 | 0.969 |
| RF | 0.131 | 0.027 | 0.695 | 0.027 | 0.002 |
| XGB | 0.275 | 0.131 | 0.193 | 0.193 | 0.010 |
| SVM | 0.160 | 0.027 | 0.846 | 0.027 | 0.064 |

Recall

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 特征数量 | 10 | 20 | 30 | 40 | 50 |
| LR | 0.002 | 0.002 | 0.002 | 0.002 | 0.002 |
| RF | 0.002 | 0.010 | 0.002 | 0.002 | 0.002 |
| XGB | 0.002 | 0.004 | 0.002 | 0.002 | 0.002 |
| SVM | 0.083 | 0.002 | 0.002 | 0.002 | 0.002 |

F1-score

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 特征数量 | 10 | 20 | 30 | 40 | 50 |
| LR | 0.002 | 0.002 | 0.004 | 0.002 | 0.002 |
| RF | 0.027 | 0.131 | 0.002 | 0.002 | 0.002 |
| XGB | 0.010 | 0.020 | 0.004 | 0.002 | 0.002 |
| SVM | 0.010 | 0.002 | 0.002 | 0.002 | 0.002 |

AUPRC

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 特征数量 | 10 | 20 | 30 | 40 | 50 |
| LR | 0.000 | 0.002 | 0.002 | 0.002 | 0.002 |
| RF | 0.105 | 0.002 | 0.002 | 0.002 | 0.002 |
| XGB | 0.014 | 0.002 | 0.002 | 0.002 | 0.002 |
| SVM | 0.002 | 0.002 | 0.002 | 0.002 | 0.002 |

**FOX**

Precision

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 特征数量 | 10 | 20 | 30 | 40 | 50 |
| LR | 0.018 | 0.008 | 0.000 | 0.007 | 0.345 |
| RF | 0.233 | 0.084 | 0.859 | 0.889 | 0.208 |
| XGB | 0.008 | 0.027 | 0.105 | 0.131 | 0.025 |
| SVM | 0.110 | 0.089 | 0.109 | 0.010 | 0.002 |

Recall

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 特征数量 | 10 | 20 | 30 | 40 | 50 |
| LR | 0.002 | 0.002 | 0.002 | 0.002 | 0.002 |
| RF | 0.008 | 0.345 | 0.050 | 0.018 | 0.293 |
| XGB | 0.008 | 0.011 | 0.011 | 0.008 | 0.026 |
| SVM | 0.013 | 0.020 | 0.008 | 0.002 | 0.002 |

F1-score

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 特征数量 | 10 | 20 | 30 | 40 | 50 |
| LR | 0.002 | 0.002 | 0.002 | 0.002 | 0.002 |
| RF | 0.015 | 0.037 | 0.193 | 0.049 | 0.084 |
| XGB | 0.002 | 0.004 | 0.006 | 0.010 | 0.008 |
| SVM | 0.010 | 0.193 | 0.037 | 0.002 | 0.002 |

AUPRC

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 特征数量 | 10 | 20 | 30 | 40 | 50 |
| LR | 0.002 | 0.002 | 0.002 | 0.002 | 0.002 |
| RF | 0.004 | 0.131 | 0.557 | 0.431 | 0.492 |
| XGB | 0.105 | 0.275 | 0.193 | 0.037 | 0.232 |
| SVM | 0.002 | 0.002 | 0.002 | 0.002 | 0.002 |

**TET**

Precision

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 特征数量 | 10 | 20 | 30 | 40 | 50 |
| LR | 0.037 | 0.160 | 0.064 | 0.014 | 0.020 |
| RF | 0.105 | 0.492 | 0.004 | 0.002 | 0.010 |
| XGB | 0.105 | 0.846 | 0.020 | 0.037 | 0.020 |
| SVM | 0.002 | 0.432 | 0.846 | 0.322 | 0.064 |

Recall

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 特征数量 | 10 | 20 | 30 | 40 | 50 |
| LR | 0.876 | 0.161 | 0.002 | 0.002 | 0.004 |
| RF | 0.922 | 0.020 | 0.002 | 0.002 | 0.002 |
| XGB | 0.401 | 0.002 | 0.020 | 0.021 | 0.002 |
| SVM | 0.887 | 0.002 | 0.002 | 0.002 | 0.002 |

F1-score

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 特征数量 | 10 | 20 | 30 | 40 | 50 |
| LR | 0.769 | 0.821 | 0.010 | 0.002 | 0.002 |
| RF | 0.193 | 0.020 | 0.002 | 0.004 | 0.002 |
| XGB | 0.020 | 0.770 | 0.193 | 0.921 | 0.625 |
| SVM | 0.020 | 0.027 | 0.002 | 0.002 | 0.002 |

AUPRC

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 特征数量 | 10 | 20 | 30 | 40 | 50 |
| LR | 0.002 | 0.002 | 0.002 | 0.002 | 0.002 |
| RF | 0.014 | 0.002 | 0.010 | 0.006 | 0.131 |
| XGB | 0.492 | 0.002 | 0.014 | 0.105 | 0.037 |
| SVM | 0.002 | 0.002 | 0.002 | 0.002 | 0.002 |