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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  | **Model** | **Accuracy** | **AUC** | **Recall** | **Prec.** | **F1** | **Kappa** | **MCC** | **TT (Sec)** | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **nb** | Naive Bayes | 1.0000 | 0.4000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0980 | | **dt** | Decision Tree Classifier | 1.0000 | 0.4000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.1380 | | **ridge** | Ridge Classifier | 1.0000 | 0.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.1680 | | **ada** | Ada Boost Classifier | 1.0000 | 0.4000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.4010 | | **gbc** | Gradient Boosting Classifier | 1.0000 | 0.4000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 3.3330 | | **et** | Extra Trees Classifier | 1.0000 | 0.4000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.2700 | | **lightgbm** | Light Gradient Boosting Machine | 1.0000 | 0.4000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.5640 | | **rf** | Random Forest Classifier | 0.9996 | 0.4000 | 0.9996 | 0.9992 | 0.9994 | 0.9969 | 0.9969 | 1.3340 | | **xgboost** | Extreme Gradient Boosting | 0.9996 | 0.4000 | 0.9996 | 0.9992 | 0.9994 | 0.9969 | 0.9969 | 1.5260 | | **lda** | Linear Discriminant Analysis | 0.9987 | 0.4000 | 0.9987 | 0.9992 | 0.9988 | 0.9907 | 0.9908 | 1.2370 | | **qda** | Quadratic Discriminant Analysis | 0.9983 | 0.3991 | 0.9983 | 0.9968 | 0.9975 | 0.9879 | 0.9879 | 1.1660 | | **lr** | Logistic Regression | 0.9263 | 0.2051 | 0.9263 | 0.8580 | 0.8908 | 0.0000 | 0.0000 | 1.8550 | | **dummy** | Dummy Classifier | 0.9263 | 0.2000 | 0.9263 | 0.8580 | 0.8908 | 0.0000 | 0.0000 | 1.0620 | | **knn** | K Neighbors Classifier | 0.9233 | 0.2535 | 0.9233 | 0.8703 | 0.8927 | 0.0415 | 0.0634 | 1.1160 | | **svm** | SVM - Linear Kernel | 0.8279 | 0.0000 | 0.8279 | 0.8596 | 0.8116 | 0.0016 | 0.0052 | 1.4940 | |

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| |  | **Model** | **Accuracy** | **AUC** | **Recall** | **Prec.** | **F1** | **Kappa** | **MCC** | **TT (Sec)** | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **dt** | Decision Tree Classifier | 1.0000 | 0.8000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.9540 | | **ridge** | Ridge Classifier | 1.0000 | 0.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0320 | | **rf** | Random Forest Classifier | 1.0000 | 0.8000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.2270 | | **gbc** | Gradient Boosting Classifier | 1.0000 | 0.8000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 2.6500 | | **et** | Extra Trees Classifier | 1.0000 | 0.8000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.9970 | | **lightgbm** | Light Gradient Boosting Machine | 1.0000 | 0.8000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.8810 | | **ada** | Ada Boost Classifier | 0.9992 | 0.8000 | 0.9992 | 0.9985 | 0.9988 | 0.9947 | 0.9947 | 1.2240 | | **xgboost** | Extreme Gradient Boosting | 0.9992 | 0.8000 | 0.9992 | 0.9983 | 0.9987 | 0.9944 | 0.9946 | 1.2850 | | **qda** | Quadratic Discriminant Analysis | 0.9966 | 0.7987 | 0.9966 | 0.9948 | 0.9955 | 0.9782 | 0.9784 | 0.8680 | | **nb** | Naive Bayes | 0.9866 | 0.7991 | 0.9866 | 0.9930 | 0.9888 | 0.9278 | 0.9324 | 1.0330 | | **lda** | Linear Discriminant Analysis | 0.9219 | 0.7689 | 0.9219 | 0.9507 | 0.9348 | 0.5625 | 0.5727 | 1.0580 | | **lr** | Logistic Regression | 0.9169 | 0.4732 | 0.9169 | 0.8407 | 0.8771 | 0.0000 | 0.0000 | 1.6830 | | **dummy** | Dummy Classifier | 0.9169 | 0.4000 | 0.9169 | 0.8407 | 0.8771 | 0.0000 | 0.0000 | 0.8320 | | **knn** | K Neighbors Classifier | 0.9110 | 0.4781 | 0.9110 | 0.8422 | 0.8750 | 0.0223 | 0.0275 | 1.2410 | | **svm** | SVM - Linear Kernel | 0.8278 | 0.0000 | 0.8278 | 0.7553 | 0.7885 | 0.0000 | 0.0000 | 1.1480 |   DecisionTreeClassifier  DecisionTreeClassifier(ccp\_alpha=0.0, class\_weight=None, criterion='gini',  max\_depth=None, max\_features=None, max\_leaf\_nodes=None,  min\_impurity\_decrease=0.0, min\_samples\_leaf=1,  min\_samples\_split=2, min\_weight\_fraction\_leaf=0.0,  random\_state=123, splitter='best') |
| 282hotspot |
| | **Model** | **Accuracy** | **AUC** | **Recall** | **Prec.** | **F1** | **Kappa** | **MCC** | **TT (Sec)** | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **dt** | Decision Tree Classifier | 1.0000 | 0.3000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.3520 | | **ridge** | Ridge Classifier | 1.0000 | 0.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.3270 | | **rf** | Random Forest Classifier | 1.0000 | 0.3000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.6830 | | **ada** | Ada Boost Classifier | 1.0000 | 0.3000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.6890 | | **gbc** | Gradient Boosting Classifier | 1.0000 | 0.3000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 3.6100 | | **et** | Extra Trees Classifier | 1.0000 | 0.3000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.3160 | | **lightgbm** | Light Gradient Boosting Machine | 1.0000 | 0.3000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.7000 | | **xgboost** | Extreme Gradient Boosting | 0.9997 | 0.3000 | 0.9997 | 0.9994 | 0.9995 | 0.9932 | 0.9934 | 1.7390 | | **lda** | Linear Discriminant Analysis | 0.9994 | 0.3000 | 0.9994 | 0.9995 | 0.9994 | 0.9864 | 0.9868 | 1.2620 | | **nb** | Naive Bayes | 0.9810 | 0.2997 | 0.9810 | 0.9897 | 0.9837 | 0.7013 | 0.7346 | 1.0780 | | **lr** | Logistic Regression | 0.9770 | 0.1505 | 0.9770 | 0.9546 | 0.9657 | 0.0000 | 0.0000 | 1.4500 | | **knn** | K Neighbors Classifier | 0.9770 | 0.1608 | 0.9770 | 0.9546 | 0.9657 | 0.0000 | 0.0000 | 1.3750 | | **svm** | SVM - Linear Kernel | 0.9770 | 0.0000 | 0.9770 | 0.9546 | 0.9657 | 0.0000 | 0.0000 | 2.4740 | | **dummy** | Dummy Classifier | 0.9770 | 0.1500 | 0.9770 | 0.9546 | 0.9657 | 0.0000 | 0.0000 | 1.2150 | | **qda** | Quadratic Discriminant Analysis | 0.9003 | 0.2000 | 0.9003 | 0.9000 | 0.9000 | 0.9000 | 0.9000 | 1.3000 | |
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| | **Model** | **Accuracy** | **AUC** | **Recall** | **Prec.** | **F1** | **Kappa** | **MCC** | **TT (Sec)** | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **dt** | Decision Tree Classifier | 1.0000 | 0.8000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.1190 | | **ridge** | Ridge Classifier | 1.0000 | 0.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.9450 | | **rf** | Random Forest Classifier | 1.0000 | 0.8000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.3190 | | **ada** | Ada Boost Classifier | 1.0000 | 0.8000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.3250 | | **gbc** | Gradient Boosting Classifier | 1.0000 | 0.8000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.8610 | | **et** | Extra Trees Classifier | 1.0000 | 0.8000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.2690 | | **xgboost** | Extreme Gradient Boosting | 1.0000 | 0.8000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.3640 | | **lightgbm** | Light Gradient Boosting Machine | 1.0000 | 0.8000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.4950 | | **nb** | Naive Bayes | 0.9989 | 0.8000 | 0.9989 | 1.0000 | 0.9994 | 0.9954 | 0.9955 | 1.1070 | | **qda** | Quadratic Discriminant Analysis | 0.9955 | 0.7977 | 0.9955 | 0.9981 | 0.9964 | 0.9827 | 0.9832 | 1.1390 | | **lda** | Linear Discriminant Analysis | 0.8976 | 0.5551 | 0.8976 | 0.8864 | 0.8843 | 0.4850 | 0.5141 | 1.1630 | | **lr** | Logistic Regression | 0.8601 | 0.4141 | 0.8601 | 0.7397 | 0.7954 | 0.0000 | 0.0000 | 2.1000 | | **svm** | SVM - Linear Kernel | 0.8601 | 0.0000 | 0.8601 | 0.7397 | 0.7954 | 0.0000 | 0.0000 | 1.1630 | | **dummy** | Dummy Classifier | 0.8601 | 0.4000 | 0.8601 | 0.7397 | 0.7954 | 0.0000 | 0.0000 | 1.4230 | | **knn** | K Neighbors Classifier | 0.8521 | 0.5128 | 0.8521 | 0.7953 | 0.8107 | 0.1059 | 0.1370 | 1.4340 | |
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| |  | **Model** | **Accuracy** | **AUC** | **Recall** | **Prec.** | **F1** | **Kappa** | **MCC** | **TT (Sec)** | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **ridge** | Ridge Classifier | 1.0000 | 0.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.3870 | | **rf** | Random Forest Classifier | 1.0000 | 0.2000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.6350 | | **gbc** | Gradient Boosting Classifier | 1.0000 | 0.2000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 6.7550 | | **et** | Extra Trees Classifier | 1.0000 | 0.2000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.6180 | | **lightgbm** | Light Gradient Boosting Machine | 1.0000 | 0.2000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 2.9020 | | **dt** | Decision Tree Classifier | 0.9997 | 0.1999 | 0.9997 | 0.9996 | 0.9996 | 0.9976 | 0.9976 | 1.5150 | | **xgboost** | Extreme Gradient Boosting | 0.9997 | 0.2000 | 0.9997 | 0.9995 | 0.9996 | 0.9976 | 0.9976 | 2.5010 | | **qda** | Quadratic Discriminant Analysis | 0.9966 | 0.1994 | 0.9966 | 0.9935 | 0.9949 | 0.9714 | 0.9715 | 1.5810 | | **lda** | Linear Discriminant Analysis | 0.9954 | 0.2000 | 0.9954 | 0.9952 | 0.9952 | 0.9582 | 0.9586 | 1.7260 | | **ada** | Ada Boost Classifier | 0.9741 | 0.1998 | 0.9741 | 0.9594 | 0.9647 | 0.7829 | 0.7873 | 1.9230 | | **lr** | Logistic Regression | 0.9373 | 0.0944 | 0.9373 | 0.8785 | 0.9069 | 0.0000 | 0.0000 | 2.5990 | | **svm** | SVM - Linear Kernel | 0.9373 | 0.0000 | 0.9373 | 0.8785 | 0.9069 | 0.0000 | 0.0000 | 2.9310 | | **dummy** | Dummy Classifier | 0.9373 | 0.1000 | 0.9373 | 0.8785 | 0.9069 | 0.0000 | 0.0000 | 1.3270 | | **knn** | K Neighbors Classifier | 0.9358 | 0.1106 | 0.9358 | 0.8784 | 0.9062 | -0.0020 | -0.0050 | 1.4070 | | **nb** | Naive Bayes | 0.8335 | 0.2000 | 0.8335 | 0.9811 | 0.8942 | 0.3807 | 0.4808 | 1.4780 | |
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| ModelAccuracyAUCRecallPrec.F1KappaMCC0Ridge Classifier1.000001.00001.00001.00001.00001.0000  175\_245\_273 |
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| Model Accuracy AUC Recall Prec. F1 Kappa MCC TT (Sec)  dt Decision Tree Classifier 1.0000 0.7000 1.0000 1.0000 1.0000 1.0000 1.0000 0.9270  ridge Ridge Classifier 1.0000 0.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.2000  rf Random Forest Classifier 1.0000 0.7000 1.0000 1.0000 1.0000 1.0000 1.0000 1.2330  ada Ada Boost Classifier 1.0000 0.7000 1.0000 1.0000 1.0000 1.0000 1.0000 1.3310  gbc Gradient Boosting Classifier 1.0000 0.7000 1.0000 1.0000 1.0000 1.0000 1.0000 2.5790  et Extra Trees Classifier 1.0000 0.7000 1.0000 1.0000 1.0000 1.0000 1.0000 1.1950  xgboost Extreme Gradient Boosting 1.0000 0.7000 1.0000 1.0000 1.0000 1.0000 1.0000 1.4240  lightgbm Light Gradient Boosting Machine 1.0000 0.7000 1.0000 1.0000 1.0000 1.0000 1.0000 1.6080  qda Quadratic Discriminant Analysis 0.9936 0.6977 0.9936 0.9918 0.9926 0.9113 0.9129 1.0800  lr Logistic Regression 0.9642 0.3459 0.9642 0.9296 0.9466 0.0000 0.0000 1.7740  svm SVM - Linear Kernel 0.9642 0.0000 0.9642 0.9296 0.9466 0.0000 0.0000 1.2050  dummy Dummy Classifier 0.9642 0.3500 0.9642 0.9296 0.9466 0.0000 0.0000 1.0080  knn K Neighbors Classifier 0.9625 0.4054 0.9625 0.9300 0.9459 0.0107 0.0111 1.2450  nb Naive Bayes 0.9351 0.6998 0.9351 0.9788 0.9505 0.5005 0.5769 1.0230  lda Linear Discriminant Analysis 0.9300 0.5872 0.9300 0.9366 0.9329 0.0896 0.0910 1.0860 |
|  |
| |  | **Model** | **Accuracy** | **AUC** | **Recall** | **Prec.** | **F1** | **Kappa** | **MCC** | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **0** | Naive Bayes | 0.9983 | 1.0000 | 0.9983 | 0.9988 | 0.9984 | 0.9812 | 0.9814 |   248hotspot |
| |  | **Model** | **Accuracy** | **AUC** | **Recall** | **Prec.** | **F1** | **Kappa** | **MCC** | **TT (Sec)** | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **dt** | Decision Tree Classifier | 1.0000 | 0.7000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.8870 | | **ridge** | Ridge Classifier | 1.0000 | 0.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0500 | | **rf** | Random Forest Classifier | 1.0000 | 0.7000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.3310 | | **ada** | Ada Boost Classifier | 1.0000 | 0.7000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.4210 | | **gbc** | Gradient Boosting Classifier | 1.0000 | 0.7000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 2.6760 | | **et** | Extra Trees Classifier | 1.0000 | 0.7000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.2490 | | **xgboost** | Extreme Gradient Boosting | 1.0000 | 0.7000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.4700 | | **lightgbm** | Light Gradient Boosting Machine | 1.0000 | 0.7000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.7060 | | **qda** | Quadratic Discriminant Analysis | 0.9936 | 0.6977 | 0.9936 | 0.9918 | 0.9926 | 0.9113 | 0.9129 | 1.1950 | | **lr** | Logistic Regression | 0.9642 | 0.3459 | 0.9642 | 0.9296 | 0.9466 | 0.0000 | 0.0000 | 1.5920 | | **svm** | SVM - Linear Kernel | 0.9642 | 0.0000 | 0.9642 | 0.9296 | 0.9466 | 0.0000 | 0.0000 | 1.2710 | | **dummy** | Dummy Classifier | 0.9642 | 0.3500 | 0.9642 | 0.9296 | 0.9466 | 0.0000 | 0.0000 | 1.0430 | | **knn** | K Neighbors Classifier | 0.9625 | 0.4054 | 0.9625 | 0.9300 | 0.9459 | 0.0107 | 0.0111 | 1.3780 | | **nb** | Naive Bayes | 0.9351 | 0.6998 | 0.9351 | 0.9788 | 0.9505 | 0.5005 | 0.5769 | 1.0540 | | **lda** | Linear Discriminant Analysis | 0.9300 | 0.5872 | 0.9300 | 0.9366 | 0.9329 | 0.0896 | 0.0910 | 1.1170 | |
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| 245hotspot  ModelAccuracyAUCRecallPrec.F1KappaMCC0Decision Tree Classifier1.00001.00001.00001.00001.00001.00001.0000 |
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| |  | **Model** | **Accuracy** | **AUC** | **Recall** | **Prec.** | **F1** | **Kappa** | **MCC** | **TT (Sec)** | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **xgboost** | Extreme Gradient Boosting | 0.9984 | 1.0000 | 0.9984 | 0.9986 | 0.9985 | 0.9970 | 0.9970 | 10.2500 | | **et** | Extra Trees Classifier | 0.9951 | 0.9999 | 0.9951 | 0.9952 | 0.9950 | 0.9905 | 0.9906 | 6.6830 | | **lightgbm** | Light Gradient Boosting Machine | 0.9947 | 1.0000 | 0.9947 | 0.9948 | 0.9946 | 0.9898 | 0.9898 | 17.6270 | | **dt** | Decision Tree Classifier | 0.9935 | 0.9961 | 0.9935 | 0.9938 | 0.9934 | 0.9877 | 0.9877 | 4.3350 | | **rf** | Random Forest Classifier | 0.9932 | 0.9997 | 0.9932 | 0.9933 | 0.9931 | 0.9869 | 0.9870 | 6.5090 | | **gbc** | Gradient Boosting Classifier | 0.9932 | 1.0000 | 0.9932 | 0.9933 | 0.9930 | 0.9869 | 0.9870 | 113.1300 | | **lda** | Linear Discriminant Analysis | 0.9666 | 0.9981 | 0.9666 | 0.9665 | 0.9664 | 0.9362 | 0.9362 | 6.2260 | | **qda** | Quadratic Discriminant Analysis | 0.9516 | 0.9912 | 0.9516 | 0.9659 | 0.9529 | 0.9091 | 0.9120 | 5.4550 | | **ada** | Ada Boost Classifier | 0.9411 | 0.9931 | 0.9411 | 0.8990 | 0.9173 | 0.8864 | 0.8912 | 9.3710 | | **ridge** | Ridge Classifier | 0.9255 | 0.0000 | 0.9255 | 0.9237 | 0.9233 | 0.8543 | 0.8552 | 4.3350 | | **nb** | Naive Bayes | 0.9186 | 0.9853 | 0.9186 | 0.9230 | 0.9175 | 0.8484 | 0.8504 | 4.1780 | | **lr** | Logistic Regression | 0.6594 | 0.5407 | 0.6594 | 0.4348 | 0.5241 | 0.0000 | 0.0000 | 9.4880 | | **dummy** | Dummy Classifier | 0.6594 | 0.5000 | 0.6594 | 0.4348 | 0.5241 | 0.0000 | 0.0000 | 3.8440 | | **knn** | K Neighbors Classifier | 0.6464 | 0.6714 | 0.6464 | 0.5815 | 0.5962 | 0.1809 | 0.1973 | 9.3770 | | **svm** | SVM - Linear Kernel | 0.5767 | 0.0000 | 0.5767 | 0.3996 | 0.4647 | 0.0056 | 0.0062 | 32.0340 | |
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| Model Accuracy AUC Recall Prec. F1 Kappa MCC0  Extreme Gradient Boosting0.9985 1.00000. 9985 0.9986 0.9985 0.9971 0.9971 |
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| | **Model** | **Accuracy** | **AUC** | **Recall** | **Prec.** | **F1** | **Kappa** | **MCC** | **TT (Sec)** | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **ridge** | Ridge Classifier | 1.0000 | 0.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.4430 | | **rf** | Random Forest Classifier | 1.0000 | 0.2000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.7000 | | **gbc** | Gradient Boosting Classifier | 1.0000 | 0.2000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 6.3470 | | **et** | Extra Trees Classifier | 1.0000 | 0.2000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.6530 | | **lightgbm** | Light Gradient Boosting Machine | 1.0000 | 0.2000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 2.6660 | | **dt** | Decision Tree Classifier | 0.9997 | 0.1999 | 0.9997 | 0.9996 | 0.9996 | 0.9976 | 0.9976 | 1.3820 | | **xgboost** | Extreme Gradient Boosting | 0.9997 | 0.2000 | 0.9997 | 0.9995 | 0.9996 | 0.9976 | 0.9976 | 2.5780 | | **qda** | Quadratic Discriminant Analysis | 0.9966 | 0.1994 | 0.9966 | 0.9935 | 0.9949 | 0.9714 | 0.9715 | 1.6420 | | **lda** | Linear Discriminant Analysis | 0.9954 | 0.2000 | 0.9954 | 0.9952 | 0.9952 | 0.9582 | 0.9586 | 1.7450 | | **ada** | Ada Boost Classifier | 0.9741 | 0.1998 | 0.9741 | 0.9594 | 0.9647 | 0.7829 | 0.7873 | 2.1420 | | **lr** | Logistic Regression | 0.9373 | 0.0944 | 0.9373 | 0.8785 | 0.9069 | 0.0000 | 0.0000 | 2.6880 | | **svm** | SVM - Linear Kernel | 0.9373 | 0.0000 | 0.9373 | 0.8785 | 0.9069 | 0.0000 | 0.0000 | 2.9350 | | **dummy** | Dummy Classifier | 0.9373 | 0.1000 | 0.9373 | 0.8785 | 0.9069 | 0.0000 | 0.0000 | 1.3660 | | **knn** | K Neighbors Classifier | 0.9358 | 0.1106 | 0.9358 | 0.8784 | 0.9062 | -0.0020 | -0.0050 | 1.4580 | | **nb** | Naive Bayes | 0.8335 | 0.2000 | 0.8335 | 0.9811 | 0.8942 | 0.3807 | 0.4808 | 1.3960 | |
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| ModelAccuracyAUCRecallPrec.F1KappaMCC0Ridge Classifier1.000001.00001.00001.00001.00001.0000 |
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| |  | **Model** | **Accuracy** | **AUC** | **Recall** | **Prec.** | **F1** | **Kappa** | **MCC** | **TT (Sec)** | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **dt** | Decision Tree Classifier | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.1130 | | **ridge** | Ridge Classifier | 1.0000 | 0.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.1220 | | **rf** | Random Forest Classifier | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.3620 | | **gbc** | Gradient Boosting Classifier | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 4.5980 | | **et** | Extra Trees Classifier | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.3840 | | **xgboost** | Extreme Gradient Boosting | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.9090 | | **lightgbm** | Light Gradient Boosting Machine | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 2.0660 | | **qda** | Quadratic Discriminant Analysis | 0.9990 | 0.9995 | 0.9990 | 0.9985 | 0.9987 | 0.9943 | 0.9943 | 1.2660 | | **lda** | Linear Discriminant Analysis | 0.9924 | 0.9848 | 0.9924 | 0.9929 | 0.9916 | 0.9464 | 0.9481 | 1.4130 | | **ada** | Ada Boost Classifier | 0.9674 | 0.9981 | 0.9674 | 0.9470 | 0.9549 | 0.8088 | 0.8139 | 1.5580 | | **lr** | Logistic Regression | 0.9082 | 0.5588 | 0.9082 | 0.8248 | 0.8645 | 0.0000 | 0.0000 | 2.2190 | | **dummy** | Dummy Classifier | 0.9082 | 0.5000 | 0.9082 | 0.8248 | 0.8645 | 0.0000 | 0.0000 | 1.0890 | | **knn** | K Neighbors Classifier | 0.9039 | 0.6324 | 0.9039 | 0.8509 | 0.8703 | 0.0807 | 0.1151 | 1.1860 | | **svm** | SVM - Linear Kernel | 0.8217 | 0.0000 | 0.8217 | 0.8329 | 0.7859 | 0.0004 | 0.0034 | 1.7350 | | **nb** | Naive Bayes | 0.7335 | 0.9953 | 0.7335 | 0.9403 | 0.8053 | 0.3055 | 0.4077 | 0.9750 | |
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| 175\_249  ModelAccuracyAUCRecallPrec.F1KappaMCC0Decision Tree Classifier1.00001.00001.00001.00001.00001.00001.0000 |
|  |
| |  | **Model** | **Accuracy** | **AUC** | **Recall** | **Prec.** | **F1** | **Kappa** | **MCC** | **TT (Sec)** | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **dt** | Decision Tree Classifier | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.3760 | | **rf** | Random Forest Classifier | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.9250 | | **et** | Extra Trees Classifier | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.9330 | | **ridge** | Ridge Classifier | 0.9999 | 0.0000 | 0.9999 | 1.0000 | 0.9999 | 0.9990 | 0.9990 | 1.5130 | | **ada** | Ada Boost Classifier | 0.9999 | 1.0000 | 0.9999 | 1.0000 | 0.9999 | 0.9990 | 0.9990 | 2.5190 | | **gbc** | Gradient Boosting Classifier | 0.9999 | 1.0000 | 0.9999 | 0.9999 | 0.9999 | 0.9990 | 0.9990 | 12.2550 | | **lda** | Linear Discriminant Analysis | 0.9999 | 1.0000 | 0.9999 | 1.0000 | 0.9999 | 0.9990 | 0.9990 | 1.8600 | | **xgboost** | Extreme Gradient Boosting | 0.9999 | 1.0000 | 0.9999 | 0.9999 | 0.9999 | 0.9990 | 0.9990 | 2.7970 | | **qda** | Quadratic Discriminant Analysis | 0.9992 | 0.9987 | 0.9992 | 0.9992 | 0.9991 | 0.9920 | 0.9920 | 1.6390 | | **lightgbm** | Light Gradient Boosting Machine | 0.9965 | 0.9709 | 0.9965 | 0.9952 | 0.9957 | 0.9523 | 0.9561 | 4.0680 | | **lr** | Logistic Regression | 0.9504 | 0.5334 | 0.9504 | 0.9032 | 0.9262 | 0.0000 | 0.0000 | 2.7320 | | **dummy** | Dummy Classifier | 0.9504 | 0.5000 | 0.9504 | 0.9032 | 0.9262 | 0.0000 | 0.0000 | 1.3390 | | **knn** | K Neighbors Classifier | 0.9483 | 0.5851 | 0.9483 | 0.9098 | 0.9263 | 0.0201 | 0.0388 | 1.6680 | | **nb** | Naive Bayes | 0.9086 | 0.9986 | 0.9086 | 0.9921 | 0.9471 | 0.4906 | 0.5710 | 1.4000 | | **svm** | SVM - Linear Kernel | 0.8555 | 0.0000 | 0.8555 | 0.8128 | 0.8335 | 0.0000 | 0.0000 | 4.5050 | |
|  |
| |  | **Model** | **Accuracy** | **AUC** | **Recall** | **Prec.** | **F1** | **Kappa** | **MCC** | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **0** | Decision Tree Classifier | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | |
| 175\_245\_248\_249\_273 |
|  |
| |  | **Model** | **Accuracy** | **AUC** | **Recall** | **Prec.** | **F1** | **Kappa** | **MCC** | **TT (Sec)** | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **dt** | Decision Tree Classifier | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.3780 | | **ridge** | Ridge Classifier | 1.0000 | 0.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.4210 | | **gbc** | Gradient Boosting Classifier | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 13.2430 | | **et** | Extra Trees Classifier | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.8000 | | **xgboost** | Extreme Gradient Boosting | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 2.9890 | | **rf** | Random Forest Classifier | 0.9999 | 1.0000 | 0.9999 | 0.9998 | 0.9998 | 0.9987 | 0.9987 | 1.7560 | | **lda** | Linear Discriminant Analysis | 0.9999 | 0.9987 | 0.9999 | 0.9998 | 0.9998 | 0.9987 | 0.9987 | 2.1450 | | **qda** | Quadratic Discriminant Analysis | 0.9991 | 0.9995 | 0.9991 | 0.9987 | 0.9988 | 0.9882 | 0.9882 | 1.6440 | | **ada** | Ada Boost Classifier | 0.9984 | 1.0000 | 0.9984 | 0.9971 | 0.9977 | 0.9803 | 0.9803 | 2.5300 | | **lightgbm** | Light Gradient Boosting Machine | 0.9817 | 0.9045 | 0.9817 | 0.9845 | 0.9823 | 0.7765 | 0.7784 | 3.8630 | | **lr** | Logistic Regression | 0.9587 | 0.5190 | 0.9587 | 0.9191 | 0.9385 | 0.0000 | 0.0000 | 3.5170 | | **svm** | SVM - Linear Kernel | 0.9587 | 0.0000 | 0.9587 | 0.9191 | 0.9385 | 0.0000 | 0.0000 | 4.4320 | | **dummy** | Dummy Classifier | 0.9587 | 0.5000 | 0.9587 | 0.9191 | 0.9385 | 0.0000 | 0.0000 | 1.4050 | | **knn** | K Neighbors Classifier | 0.9573 | 0.5582 | 0.9573 | 0.9195 | 0.9380 | 0.0114 | 0.0204 | 1.6790 | | **nb** | Naive Bayes | 0.9252 | 0.9997 | 0.9252 | 0.9928 | 0.9565 | 0.5021 | 0.5785 | 1.4070 | |
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| ModelAccuracyAUCRecallPrec.F1KappaMCCTT (Sec)dtDecision Tree Classifier1.00001.00001.00001.00001.00001.00001.00002.1660ridgeRidge Classifier1.00000.00001.00001.00001.00001.00001.00002.0710adaAda Boost Classifier1.00001.00001.00001.00001.00001.00001.00003.3190gbcGradient Boosting Classifier1.00001.00001.00001.00001.00001.00001.000017.1340etExtra Trees Classifier1.00001.00001.00001.00001.00001.00001.00002.3970xgboostExtreme Gradient Boosting1.00001.00001.00001.00001.00001.00001.00003.8830rfRandom Forest Classifier0.99991.00000.99990.99990.99990.99910.99912.6770ldaLinear Discriminant Analysis0.99990.99920.99990.99990.99990.99910.99912.6260qdaQuadratic Discriminant Analysis0.99940.99970.99940.99960.99940.99400.99402.3450lightgbmLight Gradient Boosting Machine0.99050.96220.99050.99190.99110.91030.91057.4120nbNaive Bayes0.98000.99920.98000.98700.98210.83210.84401.9620lrLogistic Regression0.94750.52780.94750.89780.92200.00000.00004.4790svmSVM - Linear Kernel0.94750.00000.94750.89780.92200.00000.00008.9000dummyDummy Classifier0.94750.50000.94750.89780.92200.00000.00001.8870knnK Neighbors Classifier0.94500.56140.94500.89840.92090.00190.00502.5450 |
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| |  | **Model** | **Accuracy** | **AUC** | **Recall** | **Prec.** | **F1** | **Kappa** | **MCC** | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **0** | Decision Tree Classifier | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | |
| 175\_245\_248\_249\_273\_282 |
|  |
| Model Accuracy AUC Recall Prec. F1 Kappa MCC TT (Sec)  dt Decision Tree Classifier 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 2.1750  ridge Ridge Classifier 1.0000 0.0000 1.0000 1.0000 1.0000 1.0000 1.0000 2.0230  rf Random Forest Classifier 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 2.5210  gbc Gradient Boosting Classifier 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 12.6600  et Extra Trees Classifier 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 2.5490  xgboost Extreme Gradient Boosting 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 3.8990  qda Quadratic Discriminant Analysis 0.9998 0.9999 0.9998 0.9998 0.9998 0.9985 0.9985 2.6980  lightgbm Light Gradient Boosting Machine 0.9997 1.0000 0.9997 0.9999 0.9997 0.9970 0.9970 6.2210  lda Linear Discriminant Analysis 0.9951 0.9859 0.9951 0.9945 0.9947 0.9482 0.9489 3.3440  ada Ada Boost Classifier 0.9841 0.9994 0.9841 0.9729 0.9775 0.8537 0.8557 3.3160  lr Logistic Regression 0.9430 0.5412 0.9430 0.8893 0.9154 0.0000 0.0000 4.4450  dummy Dummy Classifier 0.9430 0.5000 0.9430 0.8893 0.9154 0.0000 0.0000 1.8610  knn K Neighbors Classifier 0.9401 0.6172 0.9401 0.9003 0.9164 0.0381 0.0654 2.3100  nb Naive Bayes 0.8150 0.9984 0.8150 0.9616 0.8700 0.3132 0.4191 1.9310  svm SVM - Linear Kernel 0.7586 0.0000 0.7586 0.7117 0.7327 0.0000 0.0000 5.5010 |
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