....Processing arrhythmia.mat ....

Angle-based Outlier Detector (ABOD) ROC:0.7687, precision @ rank n:0.3571, execution time: 0.8916s

Cluster-based Local Outlier Factor ROC:0.7789, precision @ rank n:0.4643, execution time: 1.1619s

Feature Bagging ROC:0.7796, precision @ rank n:0.4643, execution time: 0.4927s

Histogram-base Outlier Detection (HBOS) ROC:0.8511, precision @ rank n:0.5714, execution time: 1.1928s

Isolation Forest ROC:0.8637, precision @ rank n:0.6071, execution time: 0.2573s

K Nearest Neighbors (KNN) ROC:0.782, precision @ rank n:0.5, execution time: 0.07s

Local Outlier Factor (LOF) ROC:0.7787, precision @ rank n:0.4643, execution time: 0.0608s

Minimum Covariance Determinant (MCD) ROC:0.8228, precision @ rank n:0.4286, execution time: 0.579s

One-class SVM (OCSVM) ROC:0.7986, precision @ rank n:0.5, execution time: 0.0409s

Principal Component Analysis (PCA) ROC:0.7997, precision @ rank n:0.5, execution time: 0.0519s

....Processing cardio.mat ....

Angle-based Outlier Detector (ABOD) ROC:0.5892, precision @ rank n:0.1918, execution time: 0.3162s

Cluster-based Local Outlier Factor ROC:0.8845, precision @ rank n:0.4932, execution time: 0.1137s

Feature Bagging ROC:0.6385, precision @ rank n:0.1781, execution time: 0.6922s

Histogram-base Outlier Detection (HBOS) ROC:0.8373, precision @ rank n:0.4521, execution time: 0.005s

Isolation Forest ROC:0.951, precision @ rank n:0.6027, execution time: 0.2439s

K Nearest Neighbors (KNN) ROC:0.734, precision @ rank n:0.3562, execution time: 0.1137s

Local Outlier Factor (LOF) ROC:0.588, precision @ rank n:0.1507, execution time: 0.0768s

Minimum Covariance Determinant (MCD) ROC:0.811, precision @ rank n:0.4658, execution time: 0.4907s

One-class SVM (OCSVM) ROC:0.9478, precision @ rank n:0.5342, execution time: 0.0698s

Principal Component Analysis (PCA) ROC:0.9616, precision @ rank n:0.6849, execution time: 0.003s

....Processing glass.mat ....

Angle-based Outlier Detector (ABOD) ROC:0.6951, precision @ rank n:0.25, execution time: 0.0339s

Cluster-based Local Outlier Factor ROC:0.811, precision @ rank n:0.25, execution time: 0.0339s

Feature Bagging ROC:0.7073, precision @ rank n:0.25, execution time: 0.0259s

Histogram-base Outlier Detection (HBOS) ROC:0.7073, precision @ rank n:0.0, execution time: 0.003s

Isolation Forest ROC:0.7134, precision @ rank n:0.25, execution time: 0.1641s

K Nearest Neighbors (KNN) ROC:0.8384, precision @ rank n:0.25, execution time: 0.0069s

Local Outlier Factor (LOF) ROC:0.7043, precision @ rank n:0.25, execution time: 0.002s

Minimum Covariance Determinant (MCD) ROC:0.8293, precision @ rank n:0.0, execution time: 0.0349s

One-class SVM (OCSVM) ROC:0.6585, precision @ rank n:0.25, execution time: 0.002s

Principal Component Analysis (PCA) ROC:0.686, precision @ rank n:0.25, execution time: 0.002s

....Processing ionosphere.mat ....

Angle-based Outlier Detector (ABOD) ROC:0.9181, precision @ rank n:0.8431, execution time: 0.0618s

Cluster-based Local Outlier Factor ROC:0.9176, precision @ rank n:0.8039, execution time: 0.0389s

Feature Bagging ROC:0.9303, precision @ rank n:0.8039, execution time: 0.0578s

Histogram-base Outlier Detection (HBOS) ROC:0.6052, precision @ rank n:0.3922, execution time: 0.007s

Isolation Forest ROC:0.8516, precision @ rank n:0.6078, execution time: 0.1905s

K Nearest Neighbors (KNN) ROC:0.932, precision @ rank n:0.8824, execution time: 0.014s

Local Outlier Factor (LOF) ROC:0.9227, precision @ rank n:0.7843, execution time: 0.006s

Minimum Covariance Determinant (MCD) ROC:0.9669, precision @ rank n:0.8627, execution time: 0.0549s

One-class SVM (OCSVM) ROC:0.8257, precision @ rank n:0.6863, execution time: 0.005s

Principal Component Analysis (PCA) ROC:0.7941, precision @ rank n:0.5686, execution time: 0.003s

....Processing letter.mat ....

Angle-based Outlier Detector (ABOD) ROC:0.8783, precision @ rank n:0.4375, execution time: 0.2967s

Cluster-based Local Outlier Factor ROC:0.7783, precision @ rank n:0.1875, execution time: 0.1177s

Feature Bagging ROC:0.8947, precision @ rank n:0.4062, execution time: 0.6154s

Histogram-base Outlier Detection (HBOS) ROC:0.6063, precision @ rank n:0.0938, execution time: 0.009s

Isolation Forest ROC:0.6279, precision @ rank n:0.0625, execution time: 0.2753s

K Nearest Neighbors (KNN) ROC:0.8573, precision @ rank n:0.3125, execution time: 0.1027s

Local Outlier Factor (LOF) ROC:0.8765, precision @ rank n:0.3438, execution time: 0.0738s

Minimum Covariance Determinant (MCD) ROC:0.8061, precision @ rank n:0.1875, execution time: 0.9749s

One-class SVM (OCSVM) ROC:0.5927, precision @ rank n:0.125, execution time: 0.0718s

Principal Component Analysis (PCA) ROC:0.5216, precision @ rank n:0.125, execution time: 0.005s

....Processing lympho.mat ....

Angle-based Outlier Detector (ABOD) ROC:0.9831, precision @ rank n:0.0, execution time: 0.0289s

Cluster-based Local Outlier Factor ROC:1.0, precision @ rank n:1.0, execution time: 0.0299s

Feature Bagging ROC:1.0, precision @ rank n:1.0, execution time: 0.0234s

Histogram-base Outlier Detection (HBOS) ROC:1.0, precision @ rank n:1.0, execution time: 0.005s

Isolation Forest ROC:1.0, precision @ rank n:1.0, execution time: 0.1636s

K Nearest Neighbors (KNN) ROC:1.0, precision @ rank n:1.0, execution time: 0.005s

Local Outlier Factor (LOF) ROC:1.0, precision @ rank n:1.0, execution time: 0.002s

Minimum Covariance Determinant (MCD) ROC:1.0, precision @ rank n:1.0, execution time: 0.0269s

One-class SVM (OCSVM) ROC:1.0, precision @ rank n:1.0, execution time: 0.002s

Principal Component Analysis (PCA) ROC:1.0, precision @ rank n:1.0, execution time: 0.002s

....Processing mnist.mat ....

Angle-based Outlier Detector (ABOD) ROC:0.7628, precision @ rank n:0.3367, execution time: 5.8136s

Cluster-based Local Outlier Factor ROC:0.8389, precision @ rank n:0.3912, execution time: 0.9464s

Feature Bagging ROC:0.7157, precision @ rank n:0.3741, execution time: 42.0034s

Histogram-base Outlier Detection (HBOS) ROC:0.5766, precision @ rank n:0.1361, execution time: 0.0439s

Isolation Forest ROC:0.7915, precision @ rank n:0.2687, execution time: 1.6414s

K Nearest Neighbors (KNN) ROC:0.8498, precision @ rank n:0.432, execution time: 8.0098s

Local Outlier Factor (LOF) ROC:0.7195, precision @ rank n:0.3673, execution time: 5.8438s

Minimum Covariance Determinant (MCD) ROC:0.8713, precision @ rank n:0.2653, execution time: 2.6559s

One-class SVM (OCSVM) ROC:0.854, precision @ rank n:0.3946, execution time: 4.2134s

Principal Component Analysis (PCA) ROC:0.8534, precision @ rank n:0.3878, execution time: 0.1326s

....Processing musk.mat ....

Angle-based Outlier Detector (ABOD) ROC:0.2161, precision @ rank n:0.1, execution time: 1.9689s

Cluster-based Local Outlier Factor ROC:1.0, precision @ rank n:1.0, execution time: 0.3251s

Feature Bagging ROC:0.473, precision @ rank n:0.125, execution time: 12.4332s

Histogram-base Outlier Detection (HBOS) ROC:0.9999, precision @ rank n:0.975, execution time: 0.0459s

Isolation Forest ROC:1.0, precision @ rank n:1.0, execution time: 1.018s

K Nearest Neighbors (KNN) ROC:0.8009, precision @ rank n:0.175, execution time: 1.5963s

Local Outlier Factor (LOF) ROC:0.4629, precision @ rank n:0.125, execution time: 1.6876s

Minimum Covariance Determinant (MCD) ROC:1.0, precision @ rank n:1.0, execution time: 11.519s

One-class SVM (OCSVM) ROC:1.0, precision @ rank n:1.0, execution time: 1.1824s

Principal Component Analysis (PCA) ROC:1.0, precision @ rank n:1.0, execution time: 0.1197s

....Processing optdigits.mat ....

Angle-based Outlier Detector (ABOD) ROC:0.4894, precision @ rank n:0.0152, execution time: 2.1491s

Cluster-based Local Outlier Factor ROC:0.7901, precision @ rank n:0.0, execution time: 0.4618s

Feature Bagging ROC:0.5062, precision @ rank n:0.0303, execution time: 11.4082s

Histogram-base Outlier Detection (HBOS) ROC:0.8774, precision @ rank n:0.2121, execution time: 0.0249s

Isolation Forest ROC:0.686, precision @ rank n:0.0303, execution time: 0.7201s

K Nearest Neighbors (KNN) ROC:0.406, precision @ rank n:0.0, execution time: 1.5075s

Local Outlier Factor (LOF) ROC:0.5277, precision @ rank n:0.0303, execution time: 1.4766s

Minimum Covariance Determinant (MCD) ROC:0.3822, precision @ rank n:0.0, execution time: 1.136s

One-class SVM (OCSVM) ROC:0.5171, precision @ rank n:0.0, execution time: 1.358s

Principal Component Analysis (PCA) ROC:0.526, precision @ rank n:0.0, execution time: 0.0439s

....Processing pendigits.mat ....

Angle-based Outlier Detector (ABOD) ROC:0.667, precision @ rank n:0.0526, execution time: 1.3174s

Cluster-based Local Outlier Factor ROC:0.8082, precision @ rank n:0.1579, execution time: 0.2503s

Feature Bagging ROC:0.4889, precision @ rank n:0.0526, execution time: 4.1205s

Histogram-base Outlier Detection (HBOS) ROC:0.9348, precision @ rank n:0.2632, execution time: 0.009s

Isolation Forest ROC:0.939, precision @ rank n:0.3333, execution time: 0.6473s

K Nearest Neighbors (KNN) ROC:0.7371, precision @ rank n:0.0702, execution time: 0.5899s

Local Outlier Factor (LOF) ROC:0.4965, precision @ rank n:0.0702, execution time: 0.5974s

Minimum Covariance Determinant (MCD) ROC:0.8204, precision @ rank n:0.0877, execution time: 2.0964s

One-class SVM (OCSVM) ROC:0.9235, precision @ rank n:0.3158, execution time: 0.959s

Principal Component Analysis (PCA) ROC:0.9309, precision @ rank n:0.3158, execution time: 0.008s

....Processing pima.mat ....

Angle-based Outlier Detector (ABOD) ROC:0.7163, precision @ rank n:0.5253, execution time: 0.1287s

Cluster-based Local Outlier Factor ROC:0.67, precision @ rank n:0.4949, execution time: 0.0818s

Feature Bagging ROC:0.6448, precision @ rank n:0.4444, execution time: 0.0897s

Histogram-base Outlier Detection (HBOS) ROC:0.711, precision @ rank n:0.5354, execution time: 0.003s

Isolation Forest ROC:0.6829, precision @ rank n:0.5253, execution time: 0.2234s

K Nearest Neighbors (KNN) ROC:0.7395, precision @ rank n:0.5859, execution time: 0.0279s

Local Outlier Factor (LOF) ROC:0.6574, precision @ rank n:0.4646, execution time: 0.01s

Minimum Covariance Determinant (MCD) ROC:0.7175, precision @ rank n:0.5152, execution time: 0.0499s

One-class SVM (OCSVM) ROC:0.6561, precision @ rank n:0.5051, execution time: 0.009s

Principal Component Analysis (PCA) ROC:0.6762, precision @ rank n:0.5354, execution time: 0.002s

....Processing satellite.mat ....

Angle-based Outlier Detector (ABOD) ROC:0.5653, precision @ rank n:0.3962, execution time: 1.5923s

Cluster-based Local Outlier Factor ROC:0.7241, precision @ rank n:0.5412, execution time: 0.3655s

Feature Bagging ROC:0.572, precision @ rank n:0.4, execution time: 7.2648s

Histogram-base Outlier Detection (HBOS) ROC:0.7486, precision @ rank n:0.57, execution time: 0.017s

Isolation Forest ROC:0.6838, precision @ rank n:0.5812, execution time: 0.6413s

K Nearest Neighbors (KNN) ROC:0.6853, precision @ rank n:0.4988, execution time: 0.8687s

Local Outlier Factor (LOF) ROC:0.572, precision @ rank n:0.395, execution time: 0.8607s

Minimum Covariance Determinant (MCD) ROC:0.8055, precision @ rank n:0.6762, execution time: 2.0306s

One-class SVM (OCSVM) ROC:0.6478, precision @ rank n:0.5225, execution time: 1.2587s

Principal Component Analysis (PCA) ROC:0.5923, precision @ rank n:0.465, execution time: 0.0219s

....Processing satimage-2.mat ....

Angle-based Outlier Detector (ABOD) ROC:0.8432, precision @ rank n:0.2333, execution time: 1.3595s

Cluster-based Local Outlier Factor ROC:0.9998, precision @ rank n:0.9333, execution time: 0.2952s

Feature Bagging ROC:0.5235, precision @ rank n:0.1667, execution time: 5.8611s

Histogram-base Outlier Detection (HBOS) ROC:0.9784, precision @ rank n:0.6, execution time: 0.014s

Isolation Forest ROC:0.9955, precision @ rank n:0.8667, execution time: 0.5535s

K Nearest Neighbors (KNN) ROC:0.9515, precision @ rank n:0.4333, execution time: 0.7131s

Local Outlier Factor (LOF) ROC:0.5257, precision @ rank n:0.1667, execution time: 0.6742s

Minimum Covariance Determinant (MCD) ROC:0.9963, precision @ rank n:0.6667, execution time: 1.7723s

One-class SVM (OCSVM) ROC:0.9997, precision @ rank n:0.9, execution time: 1.0339s

Principal Component Analysis (PCA) ROC:0.9816, precision @ rank n:0.7333, execution time: 0.0169s

....Processing shuttle.mat ....

Angle-based Outlier Detector (ABOD) ROC:0.6171, precision @ rank n:0.2003, execution time: 12.2056s

Cluster-based Local Outlier Factor ROC:0.6273, precision @ rank n:0.2025, execution time: 0.8363s

Feature Bagging ROC:0.4725, precision @ rank n:0.0257, execution time: 59.3938s

Histogram-base Outlier Detection (HBOS) ROC:0.9871, precision @ rank n:0.9985, execution time: 0.015s

Isolation Forest ROC:0.9976, precision @ rank n:0.9501, execution time: 2.7341s

K Nearest Neighbors (KNN) ROC:0.6507, precision @ rank n:0.212, execution time: 6.9291s

Local Outlier Factor (LOF) ROC:0.5556, precision @ rank n:0.1548, execution time: 8.8774s

Minimum Covariance Determinant (MCD) ROC:0.9899, precision @ rank n:0.7395, execution time: 9.9419s

One-class SVM (OCSVM) ROC:0.9934, precision @ rank n:0.956, execution time: 41.0563s

Principal Component Analysis (PCA) ROC:0.9915, precision @ rank n:0.9516, execution time: 0.0331s

....Processing vertebral.mat ....

Angle-based Outlier Detector (ABOD) ROC:0.5366, precision @ rank n:0.2143, execution time: 0.0409s

Cluster-based Local Outlier Factor ROC:0.439, precision @ rank n:0.0714, execution time: 0.0429s

Feature Bagging ROC:0.5279, precision @ rank n:0.1429, execution time: 0.0349s

Histogram-base Outlier Detection (HBOS) ROC:0.3506, precision @ rank n:0.0, execution time: 0.002s

Isolation Forest ROC:0.3789, precision @ rank n:0.0, execution time: 0.1905s

K Nearest Neighbors (KNN) ROC:0.4573, precision @ rank n:0.0714, execution time: 0.009s

Local Outlier Factor (LOF) ROC:0.4983, precision @ rank n:0.1429, execution time: 0.002s

Minimum Covariance Determinant (MCD) ROC:0.4085, precision @ rank n:0.0714, execution time: 0.0379s

One-class SVM (OCSVM) ROC:0.4686, precision @ rank n:0.0714, execution time: 0.001s

Principal Component Analysis (PCA) ROC:0.4085, precision @ rank n:0.0, execution time: 0.001s

....Processing vowels.mat ....

Angle-based Outlier Detector (ABOD) ROC:0.9616, precision @ rank n:0.6316, execution time: 0.2633s

Cluster-based Local Outlier Factor ROC:0.8963, precision @ rank n:0.3158, execution time: 0.0908s

Feature Bagging ROC:0.9365, precision @ rank n:0.3684, execution time: 0.3012s

Histogram-base Outlier Detection (HBOS) ROC:0.6876, precision @ rank n:0.1579, execution time: 0.004s

Isolation Forest ROC:0.8214, precision @ rank n:0.1579, execution time: 0.2713s

K Nearest Neighbors (KNN) ROC:0.9734, precision @ rank n:0.4737, execution time: 0.0628s

Local Outlier Factor (LOF) ROC:0.9398, precision @ rank n:0.3684, execution time: 0.0299s

Minimum Covariance Determinant (MCD) ROC:0.7243, precision @ rank n:0.1053, execution time: 0.7709s

One-class SVM (OCSVM) ROC:0.8163, precision @ rank n:0.2632, execution time: 0.0379s

Principal Component Analysis (PCA) ROC:0.6297, precision @ rank n:0.1579, execution time: 0.003s

....Processing wbc.mat ....

Angle-based Outlier Detector (ABOD) ROC:0.921, precision @ rank n:0.375, execution time: 0.0708s

Cluster-based Local Outlier Factor ROC:0.9149, precision @ rank n:0.375, execution time: 0.0559s

Feature Bagging ROC:0.9271, precision @ rank n:0.375, execution time: 0.0858s

Histogram-base Outlier Detection (HBOS) ROC:0.9479, precision @ rank n:0.5, execution time: 0.008s

Isolation Forest ROC:0.9418, precision @ rank n:0.625, execution time: 0.2364s

K Nearest Neighbors (KNN) ROC:0.9444, precision @ rank n:0.5, execution time: 0.017s

Local Outlier Factor (LOF) ROC:0.9227, precision @ rank n:0.375, execution time: 0.008s

Minimum Covariance Determinant (MCD) ROC:0.9288, precision @ rank n:0.5, execution time: 0.0598s

One-class SVM (OCSVM) ROC:0.9358, precision @ rank n:0.375, execution time: 0.007s

Principal Component Analysis (PCA) ROC:0.9262, precision @ rank n:0.375, execution time: 0.003s