Classification Report 2022-07-03-16-50-42

## ========== Initializing fit\_ensemble\_voting\_classifier ==========

## Model : LogisticRegression

Initializing builMultiLabelModels

Accuracy\_score: 70.72 %

Loss: 29.28 %

Hamming\_loss: 7.99 %

Classification\_report: precision recall f1-score support  
  
 0 0.78 0.61 0.68 855  
 1 0.49 0.19 0.27 512  
 2 0.91 0.89 0.90 302  
 3 1.00 0.92 0.96 65  
 4 0.88 0.92 0.90 544  
  
 micro avg 0.81 0.63 0.71 2278  
 macro avg 0.81 0.70 0.74 2278  
weighted avg 0.76 0.63 0.68 2278  
 samples avg 0.30 0.28 0.28 2278

File saved: D:\test\Basic\_Python\Project POMO\data scraping\Artifact\2022-07-03-16-50-42\Models\MultiLabelModel\_LogisticRegression.pkl

Model data: {'Accuracy': 70.72, 'Loss': 29.28, 'Hamming\_loss': 7.99, 'Model\_name': 'LogisticRegression', 'Filename': 'D:\\test\\Basic\_Python\\Project POMO\\data scraping\\Artifact\\2022-07-03-16-50-42\\Models\\MultiLabelModel\_LogisticRegression.pkl'}

## Model : KNeighborsClassifier

Initializing builMultiLabelModels

Accuracy\_score: 88.84 %

Loss: 11.16 %

Hamming\_loss: 2.73 %

Classification\_report: precision recall f1-score support  
  
 0 0.91 0.81 0.86 855  
 1 0.91 0.90 0.91 512  
 2 0.96 0.99 0.98 302  
 3 0.96 0.68 0.79 65  
 4 0.94 0.98 0.96 544  
  
 micro avg 0.93 0.89 0.91 2278  
 macro avg 0.94 0.87 0.90 2278  
weighted avg 0.93 0.89 0.91 2278  
 samples avg 0.38 0.38 0.38 2278

File saved: D:\test\Basic\_Python\Project POMO\data scraping\Artifact\2022-07-03-16-50-42\Models\MultiLabelModel\_KNeighborsClassifier.pkl

Model data: {'Accuracy': 88.84, 'Loss': 11.16, 'Hamming\_loss': 2.73, 'Model\_name': 'KNeighborsClassifier', 'Filename': 'D:\\test\\Basic\_Python\\Project POMO\\data scraping\\Artifact\\2022-07-03-16-50-42\\Models\\MultiLabelModel\_KNeighborsClassifier.pkl'}

## Model : GaussianNB

Initializing builMultiLabelModels

Accuracy\_score: 62.41 %

Loss: 37.59 %

Hamming\_loss: 14.13 %

Classification\_report: precision recall f1-score support  
  
 0 0.55 0.69 0.61 855  
 1 0.46 0.83 0.59 512  
 2 0.52 0.98 0.68 302  
 3 0.24 1.00 0.38 65  
 4 0.68 0.98 0.80 544  
  
 micro avg 0.53 0.84 0.65 2278  
 macro avg 0.49 0.89 0.61 2278  
weighted avg 0.55 0.84 0.65 2278  
 samples avg 0.21 0.34 0.25 2278

File saved: D:\test\Basic\_Python\Project POMO\data scraping\Artifact\2022-07-03-16-50-42\Models\MultiLabelModel\_GaussianNB.pkl

Model data: {'Accuracy': 62.41, 'Loss': 37.59, 'Hamming\_loss': 14.13, 'Model\_name': 'GaussianNB', 'Filename': 'D:\\test\\Basic\_Python\\Project POMO\\data scraping\\Artifact\\2022-07-03-16-50-42\\Models\\MultiLabelModel\_GaussianNB.pkl'}

## Model : SVC

Initializing builMultiLabelModels

Accuracy\_score: 97.46 %

Loss: 2.54 %

Hamming\_loss: 0.53 %

Classification\_report: precision recall f1-score support  
  
 0 0.99 0.95 0.97 855  
 1 0.99 0.98 0.98 512  
 2 1.00 1.00 1.00 302  
 3 1.00 0.85 0.92 65  
 4 1.00 1.00 1.00 544  
  
 micro avg 0.99 0.97 0.98 2278  
 macro avg 1.00 0.95 0.97 2278  
weighted avg 0.99 0.97 0.98 2278  
 samples avg 0.42 0.42 0.42 2278

File saved: D:\test\Basic\_Python\Project POMO\data scraping\Artifact\2022-07-03-16-50-42\Models\MultiLabelModel\_SVC.pkl

Model data: {'Accuracy': 97.46, 'Loss': 2.54, 'Hamming\_loss': 0.53, 'Model\_name': 'SVC', 'Filename': 'D:\\test\\Basic\_Python\\Project POMO\\data scraping\\Artifact\\2022-07-03-16-50-42\\Models\\MultiLabelModel\_SVC.pkl'}

## Model : DecisionTreeClassifier

Initializing builMultiLabelModels

Accuracy\_score: 100.0 %

Loss: 0.0 %

Hamming\_loss: 0.0 %

Classification\_report: precision recall f1-score support  
  
 0 1.00 1.00 1.00 855  
 1 1.00 1.00 1.00 512  
 2 1.00 1.00 1.00 302  
 3 1.00 1.00 1.00 65  
 4 1.00 1.00 1.00 544  
  
 micro avg 1.00 1.00 1.00 2278  
 macro avg 1.00 1.00 1.00 2278  
weighted avg 1.00 1.00 1.00 2278  
 samples avg 0.44 0.44 0.44 2278

File saved: D:\test\Basic\_Python\Project POMO\data scraping\Artifact\2022-07-03-16-50-42\Models\MultiLabelModel\_DecisionTreeClassifier.pkl

Model data: {'Accuracy': 100.0, 'Loss': 0.0, 'Hamming\_loss': 0.0, 'Model\_name': 'DecisionTreeClassifier', 'Filename': 'D:\\test\\Basic\_Python\\Project POMO\\data scraping\\Artifact\\2022-07-03-16-50-42\\Models\\MultiLabelModel\_DecisionTreeClassifier.pkl'}

## Model : RandomForestClassifier

Initializing builMultiLabelModels

Accuracy\_score: 100.0 %

Loss: 0.0 %

Hamming\_loss: 0.0 %

Classification\_report: precision recall f1-score support  
  
 0 1.00 1.00 1.00 855  
 1 1.00 1.00 1.00 512  
 2 1.00 1.00 1.00 302  
 3 1.00 1.00 1.00 65  
 4 1.00 1.00 1.00 544  
  
 micro avg 1.00 1.00 1.00 2278  
 macro avg 1.00 1.00 1.00 2278  
weighted avg 1.00 1.00 1.00 2278  
 samples avg 0.44 0.44 0.44 2278

File saved: D:\test\Basic\_Python\Project POMO\data scraping\Artifact\2022-07-03-16-50-42\Models\MultiLabelModel\_RandomForestClassifier.pkl

Model data: {'Accuracy': 100.0, 'Loss': 0.0, 'Hamming\_loss': 0.0, 'Model\_name': 'RandomForestClassifier', 'Filename': 'D:\\test\\Basic\_Python\\Project POMO\\data scraping\\Artifact\\2022-07-03-16-50-42\\Models\\MultiLabelModel\_RandomForestClassifier.pkl'}

## Model : GradientBoostingClassifier

Initializing builMultiLabelModels

Accuracy\_score: 97.9 %

Loss: 2.1 %

Hamming\_loss: 0.48 %

Classification\_report: precision recall f1-score support  
  
 0 0.98 0.98 0.98 855  
 1 0.96 0.98 0.97 512  
 2 1.00 1.00 1.00 302  
 3 1.00 1.00 1.00 65  
 4 1.00 1.00 1.00 544  
  
 micro avg 0.98 0.99 0.98 2278  
 macro avg 0.99 0.99 0.99 2278  
weighted avg 0.98 0.99 0.98 2278  
 samples avg 0.43 0.43 0.43 2278

File saved: D:\test\Basic\_Python\Project POMO\data scraping\Artifact\2022-07-03-16-50-42\Models\MultiLabelModel\_GradientBoostingClassifier.pkl

Model data: {'Accuracy': 97.9, 'Loss': 2.1, 'Hamming\_loss': 0.48, 'Model\_name': 'GradientBoostingClassifier', 'Filename': 'D:\\test\\Basic\_Python\\Project POMO\\data scraping\\Artifact\\2022-07-03-16-50-42\\Models\\MultiLabelModel\_GradientBoostingClassifier.pkl'}

## Model : AdaBoostClassifier

Initializing builMultiLabelModels

Accuracy\_score: 96.55 %

Loss: 3.45 %

Hamming\_loss: 0.81 %

Classification\_report: precision recall f1-score support  
  
 0 0.97 0.96 0.96 855  
 1 0.94 0.95 0.94 512  
 2 1.00 1.00 1.00 302  
 3 1.00 1.00 1.00 65  
 4 1.00 1.00 1.00 544  
  
 micro avg 0.97 0.97 0.97 2278  
 macro avg 0.98 0.98 0.98 2278  
weighted avg 0.98 0.97 0.97 2278  
 samples avg 0.42 0.42 0.42 2278

File saved: D:\test\Basic\_Python\Project POMO\data scraping\Artifact\2022-07-03-16-50-42\Models\MultiLabelModel\_AdaBoostClassifier.pkl

Model data: {'Accuracy': 96.55, 'Loss': 3.45, 'Hamming\_loss': 0.81, 'Model\_name': 'AdaBoostClassifier', 'Filename': 'D:\\test\\Basic\_Python\\Project POMO\\data scraping\\Artifact\\2022-07-03-16-50-42\\Models\\MultiLabelModel\_AdaBoostClassifier.pkl'}

## Ensemble\_Voting\_Classifier\_Result >>>

Classification Report on Training dataset :

Accuracy\_score: 99.15 %

Loss: 0.85 %

Hamming\_loss: 0.19 %