

summary.txt

C:\ProgramData\Anaconda3\python.exe

D:/MashroomClassification_ML-Project/MashroomClassifier.py

GaussianNB(priors=None)

Naive Byes accuracy score = 70.3612479475%

Naive Byes precision score = 80.2912138374%

Naive Byes recall score = 71.3708534356%

Naive Byes f1 score = 68.3224511056%

SVC(C=25, cache_size=200, class_weight=None, coef0=0.0,
decision_function_shape=None, degree=3, gamma='auto',
kernel='linear',
max_iter=-1, probability=False, random_state=None,
shrinking=True,
tol=0.001, verbose=False)

-----VALIDATION-----

SVM accuracy score = 87.1815940838%

SVM precision score = 88.6643723096%

SVM recall score = 87.5534797683%

SVM f1 score = 87.1216931217%

-----TESTING-----

SVM accuracy score = 85.632183908%

SVM precision score = 86.8188793497%

SVM recall score = 85.9467120181%

SVM f1 score = 85.5774988683%

DecisionTreeClassifier(class_weight='balanced', criterion='gini',
max_depth=20, max_features='log2',
max_leaf_nodes=None,
min_impurity_split=1e-07, min_samples_leaf=1,
min_samples_split=5, min_weight_fraction_leaf=0.0,
presort=False, random_state=251254, splitter='best')

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Decision tree accuracy score = 93.9244663383%
Decision tree precision score = 94.3422948258%
Decision tree recall score = 94.1244124547%
Decision tree f1 score = 93.921696627%

MLPClassifier(activation='logistic', alpha=0.0001,
batch_size='auto',
beta_1=0.9, beta_2=0.999, early_stopping=False,
epsilon=1e-08,
hidden_layer_sizes=(20, 20, 20), learning_rate='constant',
learning_rate_init=0.001, max_iter=200, momentum=0.9,
nesterovs_momentum=True, power_t=0.5, random_state=False,
shuffle=True, solver='adam', tol=0.0001,
validation_fraction=0.1,
verbose=False, warm_start=False)

-----VALIDATION-----

Neural network accuracy score = 94.4946589975%
Neural network precision score = 94.8062015504%
Neural network recall score = 94.7574334898%
Neural network f1 score = 94.494525179%

-----TESTING-----

Neural network accuracy score = 93.6781609195%
Neural network precision score = 94.279346211%
Neural network recall score = 93.8102893891%
Neural network f1 score = 93.6670576391%

Process finished with exit code 0