Mon- 13Mar2023

Report # 3

Algorithm Testing and Evaluation

SPLITTING METHODS UTILIZED:

1. 10-fold Cross Validation

MODELS BEING TESTED:

1. Logistic Regression
2. Gaussian Naïve Bayes
3. Support Vector Machine
4. Decision Tree

**Testing Using Cross- Validation:**

**Gaussian Naïve Bayes:**

array([0.30263158, 0.31578947, 0.28 , 0.25333333, 0.24 , 0.33333333, 0.28 , 0.29333333, 0.28 , 0.32 ])

Graphical user interface, application

Description automatically generated

**Support Vector Machine:**

array([0.78947368, 0.82894737, 0.72 , 0.69333333, 0.70666667, 0.62666667, 0.61333333, 0.82666667, 0.70666667, 0.69333333])

**Graphical user interface

Description automatically generated**

**Decision Tree:**

array([1. , 0.98684211, 1. , 1. , 1. , 1. , 1. , 1. , 1. , 1. ])

A picture containing graphical user interface

Description automatically generated

**Testing:**

Accuracy: LOGISTIC REGRESSION: 0.6875

Accuracy: GAUSSIAN NAIVE BAYES: 0.625

Accuracy: SVM: 0.8723404255319149

Accuracy: DECISION TREE: 0.9986702127659575