Decision Tree

Test_size = 0.25

Decision Tree, Random_State = 30, Criterion = "gini"

Metrics computed from a confusion matrix

Accuracy: 0.8059467918622848

Sensitivity: 0.01092896174863388

Specificity: 0.9935525467440361

Precision: 0.2857142857142857

Classification Eerror: 0.1940532081377152

False_Positive_Rate: 0.006447453255963853

test_size = 0.45

Decision Tree, random_state = 20, Criterion = "Entropy"

Metrics computed from a confusion matrix

Accuracy: 0.8132498695878978

Sensitivity: 0.0

Specificity: 0.9961661341853035

Precision: 0.0

Classification Eerror: 0.1867501304121022

False_Positive_Rate: 0.003833865814696469

Naive Bayes

test_size = 0.25

Hyperparameter values: Naive Bayes, random_state = 10

Metrics computed from a confusion matrix

Accuracy: 0.8148148148148148

Sensitivity: 0.0

Specificity: 1.0

Precision: 0.0

Classification **Eerror:** 0.18518518518518523

False_Positive_**Rate:** 0.0

Split ratio: test_size = 0.25

Hyperparameter values: Naive Bayes, random_state = 40

Metrics computed from a confusion matrix

Accuracy: 0.8215962441314554

Sensitivity: 0.0

Specificity: 1.0

Precision: 0.0

Classification **Eerror:** 0.17840375586854462

False_Positive_**Rate:** 0.0

SVM

Split ratio: test_size = 0.35

Hyperparameter values: Support Vector Machine (SVM), random_state = 30

Metrics computed from a confusion matrix

Accuracy: 0.8128960119269475

Sensitivity: 0.0

Specificity: 1.0

Precision: 0.0

Classification Eerror: 0.1871039880730525

False_Positive_Rate: 0.0

test_size = 0.7

Support Vector Machine (SVM), random_state = 10 and 30

Metrics computed from a confusion matrix

Accuracy: 0.8104733507267984

Sensitivity: 0.0

Specificity: 1.0

Precision: 0.0

Classification Eerror: 0.18952664927320162

False_Positive_Rate: 0.0

Model	Test Size	Random State	Criterion	Accuracy	Error	Sensitivity	Specificity
Decision Tree	0.25	30	Gini	0.8059	0.1941	0.0109	0.9936
Decision Tree	0.45	20	Entropy	0.8132	0.1868	0.0000	0.9962

Model	Test Size	Random State	Criterion	Accuracy	Error	Sensitivity	Specificity
Naive Bayes	0.25	10	—	0.8148	0.1852	0.0000	1.0000
Naive Bayes	0.25	40	—	**0.8216**	**0.1784**	0.0000	1.0000
SVM	0.35	30	—	0.8129	0.1871	0.0000	1.0000
SVM	0.70	10 & 30	—	0.8105	0.1895	0.0000	1.0000