

Machine Learning Model

Report

Naive Bayes Algorithm	Bag Of Words		TF-IDF	
	Accuracy Score	Precision Score	Accuracy Score	Precision Score
Gaussian Naive Bayes	0.8800	0.5315	0.8762	0.5231
Multinomial Naive Bayes	0.9642	0.8344	<u>0.9593</u>	<u>1.0</u>
Bernoulli Naive Bayes	0.9700	0.9734	0.9700	0.9734

Algorithm	Accuracy Score	Precision Score
SVM	0.9729	0.9741
KNN	<u>0.9003</u>	<u>1.0</u>
Naive Bayes	<u>0.9593</u>	<u>1.0</u>
Decision Trees	0.9361	0.8461
Logistic Regression	0.9516	0.94
Random Forest	<u>0.9738</u>	<u>1.0</u>
AdaBoost	0.9613	0.9454
Gradient Boost	0.9526	0.9238
XgBoost	0.9690	0.9344

Max Features = 3000

Algorithm	Accuracy Score	Precision Score
Naive Bayes	<u>0.9709</u>	<u>1.0</u>
KNN	0.9052	1.0
Random Forest	0.9748	0.9827