

### Classification results

Family	Method	Accuracy	Hyper Parameter Tuning	Precision	Recall	F1-Score
<b>SVM</b>	SVM (rbf)	0.8467	'C': 10, 'kernel': 'rbf'	0.8722	0.8798	0.8585
	SVM (linear)	0.8474	'C': 10, 'kernel': 'rbf'			
	Logistic Regression	0.463454	'C': 1	0.7054	0.5470	0.3846
<b>Naive Bayes</b>	Gaussian Naive Bayes	0.82999		0.8738	0.9982	0.9979
<b>Nearest neighbour</b>	KNN	0.9849	N_neighbors : 2	0.9876	0.9880	0.9878
<b>Boosting</b>	Gradient Boosting Classifier (Default)	0.9976	'n_estimators': 100	0.9974	0.9976	0.9975
	Gradient Boosting Classifier	0.9986	'n_estimators': 250	0.9982	0.9983	0.9983
	AdaBoost Classifier (Default)	0.9973	'n_estimators': 50	0.9965	0.9966	0.9966
	AdaBoost Classifier	0.9985	'n_estimators': 300	0.9980	0.9976	0.9978
	eXtreme Gradient Boosting Classifier	0.9985		0.9984	0.9985	0.9984

<b>Bagging</b>	Decision Tree	0.9964	'n_estimators': 10	0.9987	0.9987	0.9987
	KNN	0.9867	'n_estimators': 10, 'n_neighbors': 2	0.9873	0.9859	0.9866
	Logistic_Regression	0.4578	'n_estimators' : 10 'Solver' : 'liblinear', 'multi_class' : 'auto', C=1	0.6983	0.5439	0.3804
	Voting Classifier	0.9912	estimators = [('lr',lr), ('dt',dt), ('knn',knn)], voting = 'hard'	0.9920	0.9942	0.9931
	Random Forest	0.9977	'n_estimators': 10	0.9975	0.9983	0.9979
<b>Decision Tree</b>	Decision Tree (Default)	0.9953	'criterion' : 'gini'	0.9976	0.9971	0.9973
	Decision Tree	0.9958	'criterion' : 'entropy', 'max_depth': 10	0.9974	0.9973	0.9973
	Decision Tree Regressor (Default)	0.9813		0.9974	0.9970	0.9972
<b>Neural Network</b>	Multi-layer Perceptron (MLP),	0.8184		0.8563	0.8341	0.7673
	LSTM	0.9884		0.9953	0.9852	0.7462
	CNN	0.9723		0.9762	0.9772	0.7462
<b>Discrimination Analysis</b>	Linear Discriminant Analysis	0.9680		0.9711	0.9617	0.9658
	Quadratic Discriminant Analysis	0.9800		0.9788	0.9836	0.9810