

Table 3. The range of optimized hyper-parameters for tree based classification algorithms.

Parameter	Random Forest					Decision Tree				XGBoost		
learning_rate	-	-	-	-	-	-	-	-	-	0.01	0.1	1
max_depth	-	-	-	-	-	6	8	10	50	6	7	8
max_features	10	80	500	1000	1500	-	-	-	-	-	-	-
min_child_weight	-	-	-	-	-	-	-	-	-	1	2	3
min_samples_split	-	-	-	-	-	10	25	50	-	-	-	-
n_estimators	1000	-	-	-	-	-	-	-	-	100	-	-
subsample	-	-	-	-	-	-	-	-	-	0.7	0.8	0.9