Model Optimization with PyCaret

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train.csv 59.8KB

Data After Preprocessing

	Survived	Pclass	Sex	Age	SibSp	Parch	Fare	Embarked
0	0	3	male	22	1	0	7.25	S
1	1	1	female	38	1	0	71.2833	C
2	1	3	female	26	0	0	7.925	S
3	1	1	female	35	1	0	53.1	S
4	0	3	male	35	0	0	8.05	S

Setting up PyCaret Environment

PyCaret Environment Setup Complete

Comparing Models

Best Model Selected: ``` LGBMClassifier(boosting_type='gbdt', class_weight=None, colsample_bytree=1.0, importance_type='split', learning_rate=0.1, max_depth=-1, min_child_samples=20, min_child_weight=0.001, min_split_gain=0.0, n_estimators=100, n_jobs=-1, num_leaves=31, objective=None, random_state=123, reg_alpha=0.0, reg_lambda=0.0, subsample=1.0, subsample_for_bin=200000, subsample_freq=0)

Tuning Best Model

Tuned Model: ``` LGBMClassifier(boosting_type='gbdt', class_weight=None, colsample_bytree=1.0, importance_type='split', learning_rate=0.1, max_depth=-1, min_child_samples=20, min_child_weight=0.001, min_split_gain=0.0, n_estimators=100, n_jobs=-1, num_leaves=31,

objective=None, random_state=123, reg_alpha=0.0, reg_lambda=0.0, subsample=1.0, subsample_for_bin=200000, subsample_freq=0)

Training Final Model

Predictions on Test Data

	Pclass	Sex	Age	SibSp	Parch	Fare	Embarked	Survived	prediction_label	prediction
430	1	male	28	0	0	26.55	S	1	1	
114	3	female	17	0	0	14.4583	C	0	0	
310	1	female	24	0	0	83.1583	C	1	1	
387	2	female	36	0	0	13	S	1	1	
789	1	male	46	0	0	79.2	C	0	0	
727	3	female	28	0	0	7.7375	Q	1	1	
345	2	female	24	0	0	13	S	1	1	
460	1	male	48	0	0	26.55	S	1	1	
213	2	male	30	0	0	13	S	0	0	
5	3	male	28	0	0	8.4583	Q	0	0	