

This document summarizes all debugging issues, root causes, and fixes from the wine quality prediction project using RandomForestRegressor and XGBoost.

1. MSE ()

Issue

RandomForest MSE 1e-29 ,

Cause

- (overfitting)
- log exp
-

Solution

- max_depth, min_samples_leaf
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2. XGBoost eval_metric='rsme'

Error Message

XGBoostError: Unknown metric function rsme

Cause

rsme (rmse)

Solution

eval_metric='rmse'

3. random_stae

Warning

Parameters: { "random_stae" } are not used.

Cause

random_state

Solution

random_state=42

4. GridSearchCV n_extimators

Error Message

ValueError: Invalid parameter 'n_extimators'

Cause

Solution

param_grid = {'n_estimators': [100, 200], ...}

5. y_pred vs y_true

Issue

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Solution

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- KFold

	MSE	MSE
RandomForest	~1e-29	~0.0012
XGBoost	~7e-08	MSE ()

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- Medium/ : MSE +