

1500 XGB boosting rounds are too much for hyperparameter search.

With learning rate 0.1, ~100 boosting rounds will do.

If you add "eval_set" you will see that the validation metrics do not decrease beyond that.

When you want to scale, you just multiply the tree by 10 and divide learning rate by 10. That should give better result, but it's not necessary for hyperparameter tuning.

The size of the dataset shouldn't influence the hyperparameters.