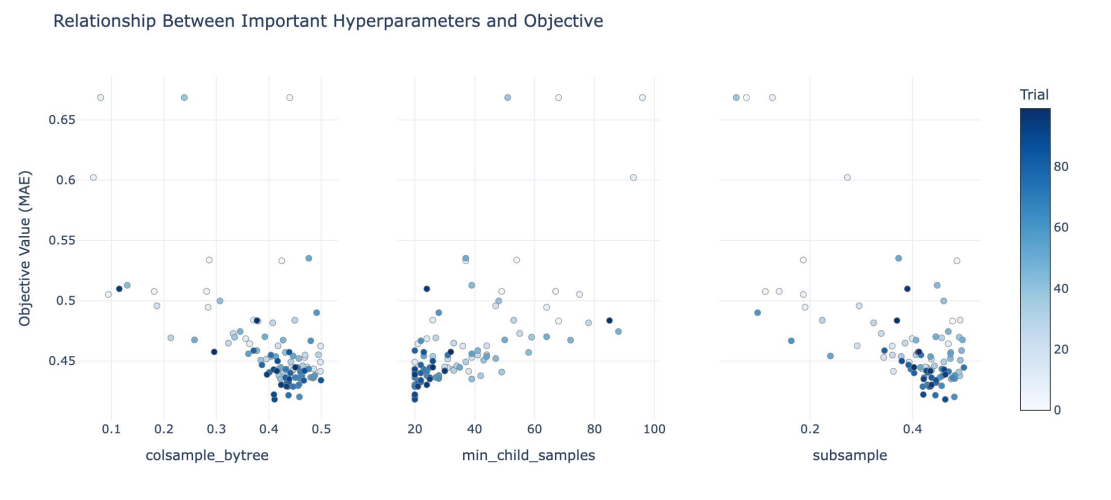


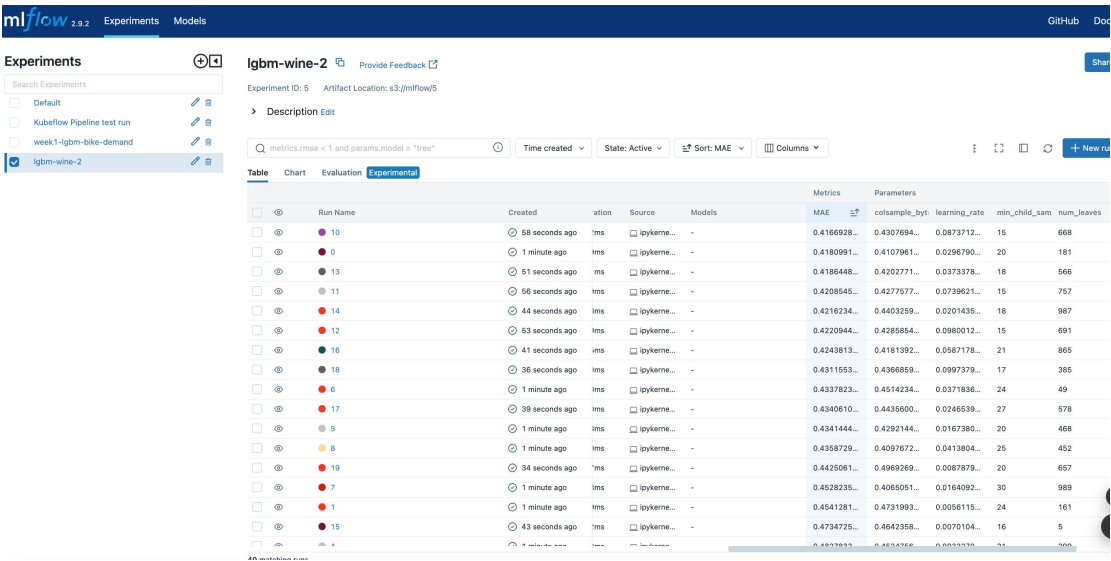
Question for Assignment 2b



As we can see from the picture,
colsample_bytree: points that can have lower MAE value are around 0.4
min_child_samples: points that can have lower MAE value are around 20
subsample: points that can have lower MAE value are around 0.4

further adjustment for next study:
colsample_bytree: [0.4, 0.5]
min_child_samples: [15, 30]
subsample: [0.4, 0.5]
By narrowing the search ranges, the optimizer will focus on areas that are more likely to yield better MAE values.

Screenshot for Assignment 2c



Screenshots for Assignment 3b

lgbm-wine-2 >

luminous-ox-662

Run ID: 70e252cd7d9d4e3399c06a00ee916004

Date: 2024-11-18 12:39:14

Source: ipynotebook_launcher.py

User: ilupeil

Duration: 10.0s

Status: FINISHED

Lifecycle Stage: active

> Description [Edit](#)

> Datasets

> Parameters (5)

> Metrics (1)

Name	Value
mae	0.3920703259498665

> Tags

> Artifacts

optuna-igbm-wine

ML_model

conda.yaml

model.pkl

python_env.yaml

requirements.txt

Full Path:s3://mlflow/5/70e252cd7d9d4e3399c06a00ee916004/artifacts/optuna-igbm-wine

optuna-igbm-wine, v2

Registered on 2024/11/18

MLflow Model

The code snippets below demonstrate how to make predictions using the logged model. This model is also registered to the [model registry](#).

Model schema

Input and output schema for your model. [Learn more](#)

Make Predictions

Predict on a Spark DataFrame: