Week 1 Assignment

Zihao Li

Assignment 0

yes

Assignment 2

2b)

▾ Simple Suite For Model Performance

Simple Suite For Model Performance

The suite is composed of the following checks: Train Test Performance, Model Inference Time.

Each check may contain conditions (which will result in pass ✓ / fail ✖ / warning ! / error ?!) as well as other outputs such as plots or tables.

Suites, checks and conditions can all be modified. Read more about custom suites.

▸ Didn't Pass

▾ Passed

Status	Check	Condition	More Info
✓	Train Test Performance	Train-Test scores relative degradation is less than 0.2	Found max degradation of -41.44% for metric rmse
✓	Model Inference Time - Train Dataset	Average model inference time for one sample is less than 0.1	Found average inference time (seconds): 3.743e-05
✓	Model Inference Time - Test Dataset	Average model inference time for one sample is less than 0.1	Found average inference time (seconds): 0.00015387

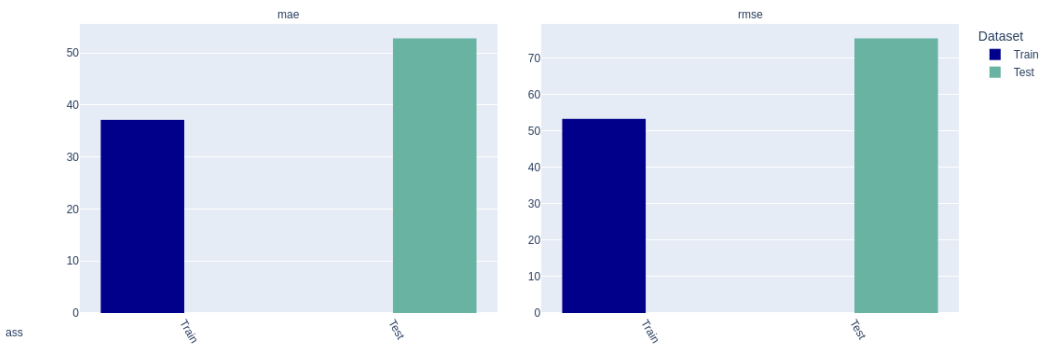
Train Test Performance

Summarize given model performance on the train and test datasets based on selected scorers. Read More...

Conditions Summary

Status	Condition	More Info
✓	Train-Test scores relative degradation is less than 0.2	Found max degradation of -41.44% for metric rmse

Additional Outputs



ass

Go to top

Model Inference Time - Train Dataset

Measure model average inference time (in seconds) per sample. Read More...

Conditions Summary

Status	Condition	More Info
✓	Average model inference time for one sample is less than 0.1	Found average inference time (seconds): 3.743e-05

Additional Outputs

Average model inference time for one sample (in seconds): 3.743e-05

Note - data sampling: Data is sampled from the original dataset, running on 1000 samples out of 10718. Sample size can be controlled with the "n_samples" parameter.

Go to top

Model Inference Time - Test Dataset

Measure model average inference time (in seconds) per sample. Read More...

Conditions Summary

Status	Condition	More Info
✓	Average model inference time for one sample is less than 0.1	Found average inference time (seconds): 0.00015387

Additional Outputs

Average model inference time for one sample (in seconds): 0.00015387

Go to top

▾ Other

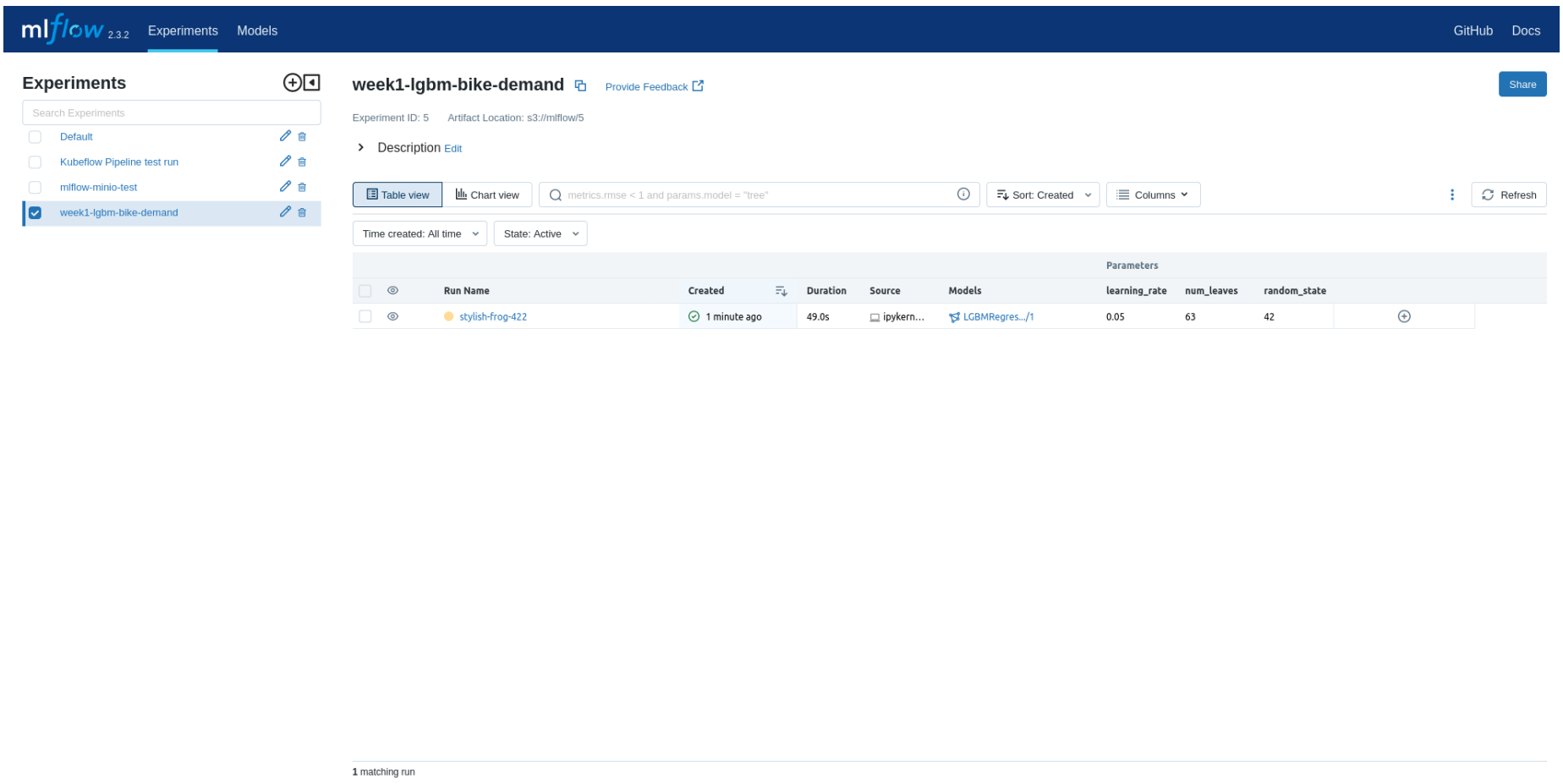
No outputs to show.

▾ Didn't Run

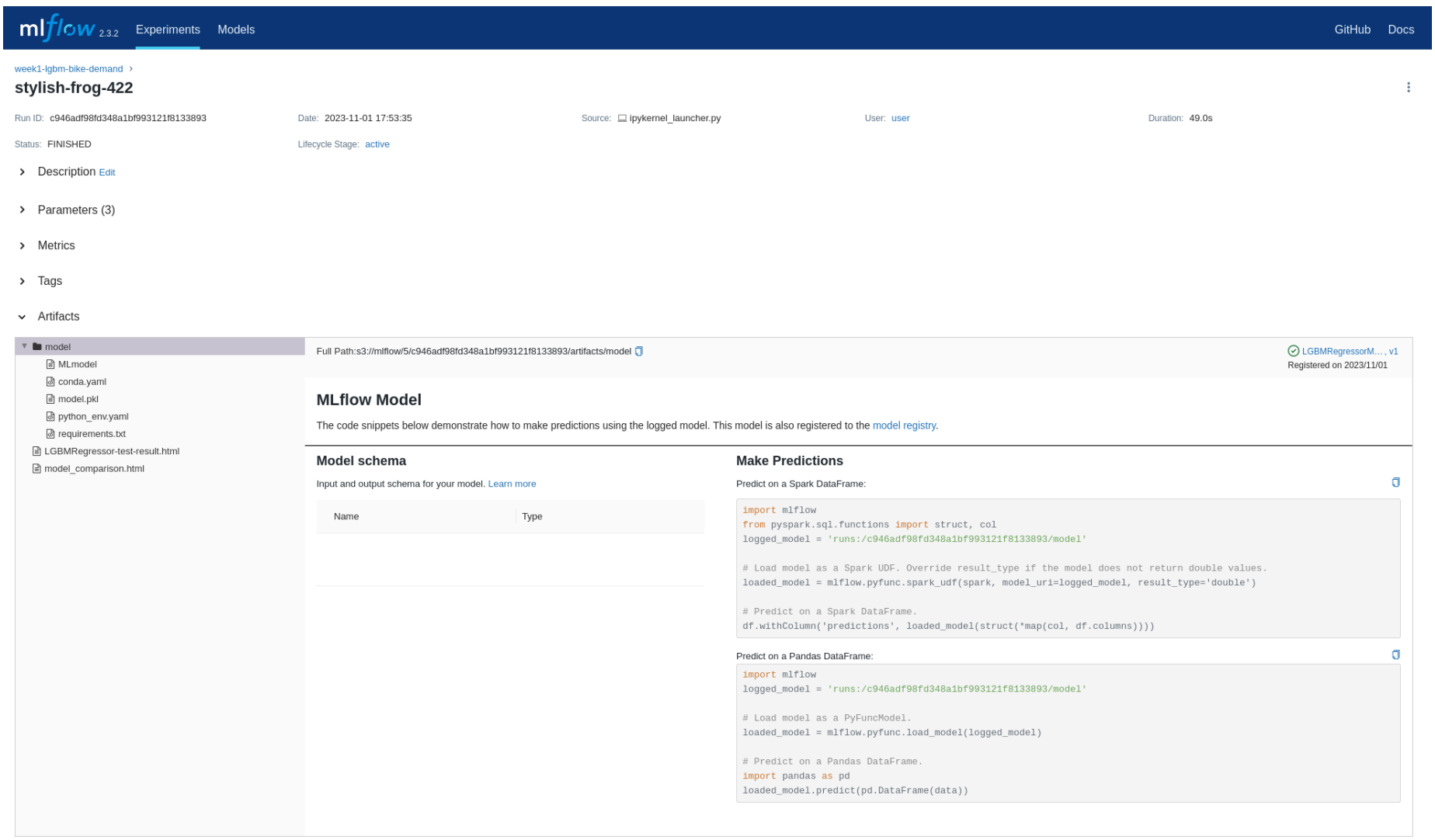
No outputs to show.

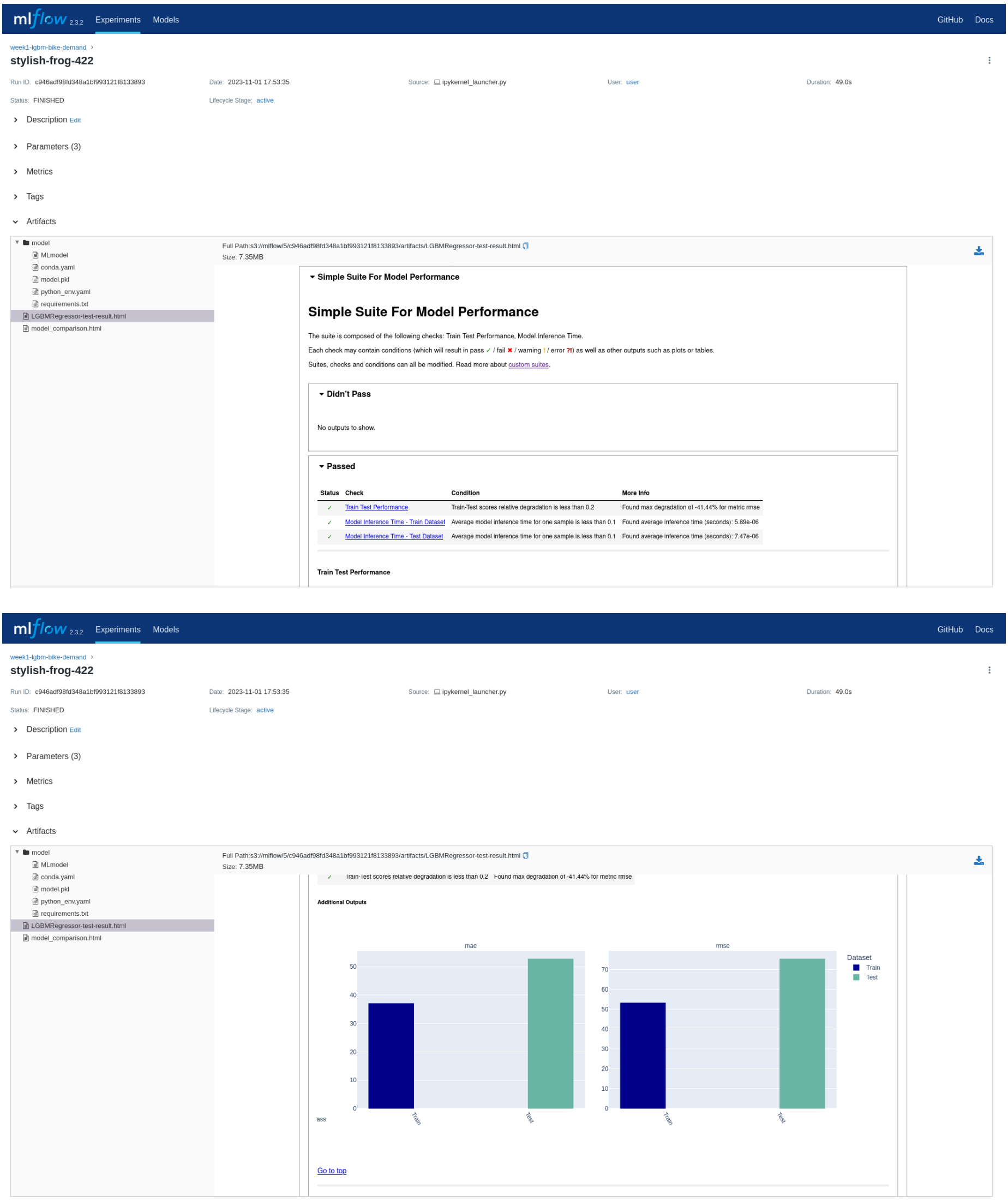
Assignment 3

1.

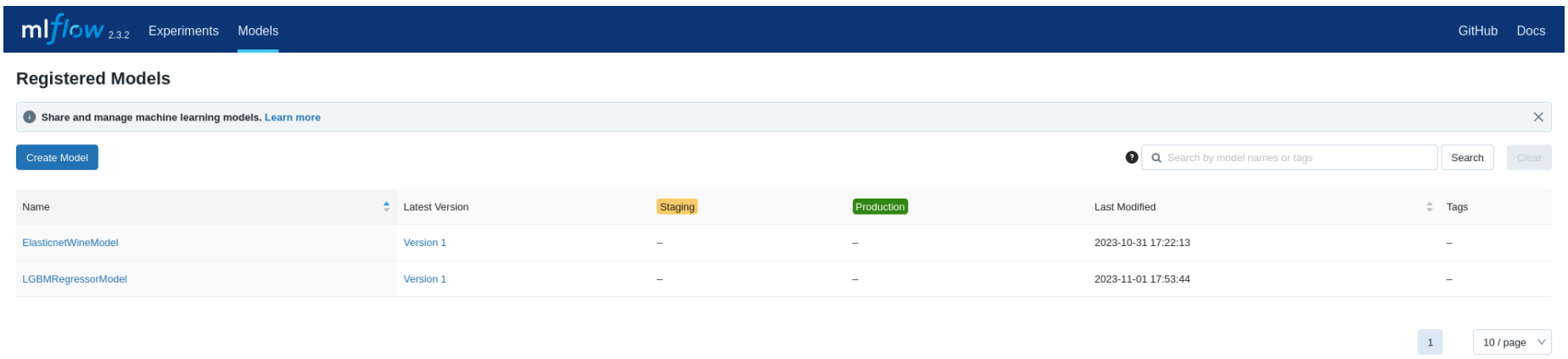

mlflow 2.3.2
Experiments
Models
GitHub
Docs
Experiments
Search Experiments
Default
Kubeflow Pipeline test run
mlflow-minio-test
week1-lgbm-bike-demand
week1-lgbm-bike-demand
Provide Feedback
Share
Experiment ID: 5
Artifact Location: s3://mlflow/5
Description Edit
Table view
Chart view
metrics.rmse < 1 and params.model = "tree"
Sort: Created
Columns
Refresh
Time created: All time
State: Active
Parameters
Run Name
Created
Duration
Source
Models
learning_rate
num_leaves
random_state
stylish-frog-422
1 minute ago
49.0s
ipykern…
LGBMRegres…/1
0.05
63
42
1 matching run

2.


mlflow 2.3.2
Experiments
Models
GitHub
Docs
week1-lgbm-bike-demand
stylish-frog-422
Run ID: c946adf98fd348a1bf993121f8133893
Date: 2023-11-01 17:53:35
Source: ipykernel_launcher.py
User: user
Duration: 49.0s
Status: FINISHED
Lifecycle Stage: active
Description Edit
Parameters (3)
Metrics
Tags
Artifacts
model
MLmodel
conda.yaml
model.pkl
python_env.yaml
requirements.txt
LGBMRegressor-test-result.html
model_comparison.html
Full Path:s3://mlflow/5/c946adf98fd348a1bf993121f8133893/artifacts/model
LGBMRegressorM… , v1
Registered on 2023/11/01
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
Name
Type
Make Predictions
Predict on a Spark DataFrame:
import mlflow
from pyspark.sql.functions import struct, col
logged_model = 'runs:/c946adf98fd348a1bf993121f8133893/model'
# Load model as a Spark UDF. Override result_type if the model does not return double values.
loaded_model = mlflow.pyfunc.spark_udf(spark, model_uri=logged_model, result_type='double')
# Predict on a Spark DataFrame.
df.withColumn('predictions', loaded_model(struct(*map(col, df.columns))))
Predict on a Pandas DataFrame:
import mlflow
logged_model = 'runs:/c946adf98fd348a1bf993121f8133893/model'
# Load model as a PyFuncModel.
loaded_model = mlflow.pyfunc.load_model(logged_model)
# Predict on a Pandas DataFrame.
import pandas as pd
loaded_model.predict(pd.DataFrame(data))


mlflow 2.3.2
Experiments
Models
GitHub
Docs
week1-lgbm-bike-demand
stylish-frog-422
Run ID: c946adf98fd348a1bf993121f8133893
Date: 2023-11-01 17:53:35
Source: ipykernel_launcher.py
User: user
Duration: 49.0s
Status: FINISHED
Lifecycle Stage: active
Description Edit
Parameters (3)
Metrics
Tags
Artifacts
model
MLmodel
conda.yaml
model.pkl
python_env.yaml
requirements.txt
LGBMRegressor-test-result.html
model_comparison.html
Full Path:s3://mlflow/5/c946adf98fd348a1bf993121f8133893/artifacts/LGBMRegressor-test-result.html
Size: 7.35MB
Simple Suite For Model Performance
Simple Suite For Model Performance
The suite is composed of the following checks: Train Test Performance, Model Inference Time.
Each check may contain conditions (which will result in pass ✓ / fail ✖ / warning ! / error ?!) as well as other outputs such as plots or tables.
Suites, checks and conditions can all be modified. Read more about custom suites.
Didn't Pass
No outputs to show.
Passed
Status
Check
Condition
More Info
✓
Train Test Performance
Train-Test scores relative degradation is less than 0.2
Found max degradation of -41.44% for metric rmse
✓
Model Inference Time - Train Dataset
Average model inference time for one sample is less than 0.1
Found average inference time (seconds): 5.89e-06
✓
Model Inference Time - Test Dataset
Average model inference time for one sample is less than 0.1
Found average inference time (seconds): 7.47e-06
Train Test Performance
Additional Outputs
mae
rmse
Dataset
Train
Test
Train
Test
Go to top

3.



Assignment 4