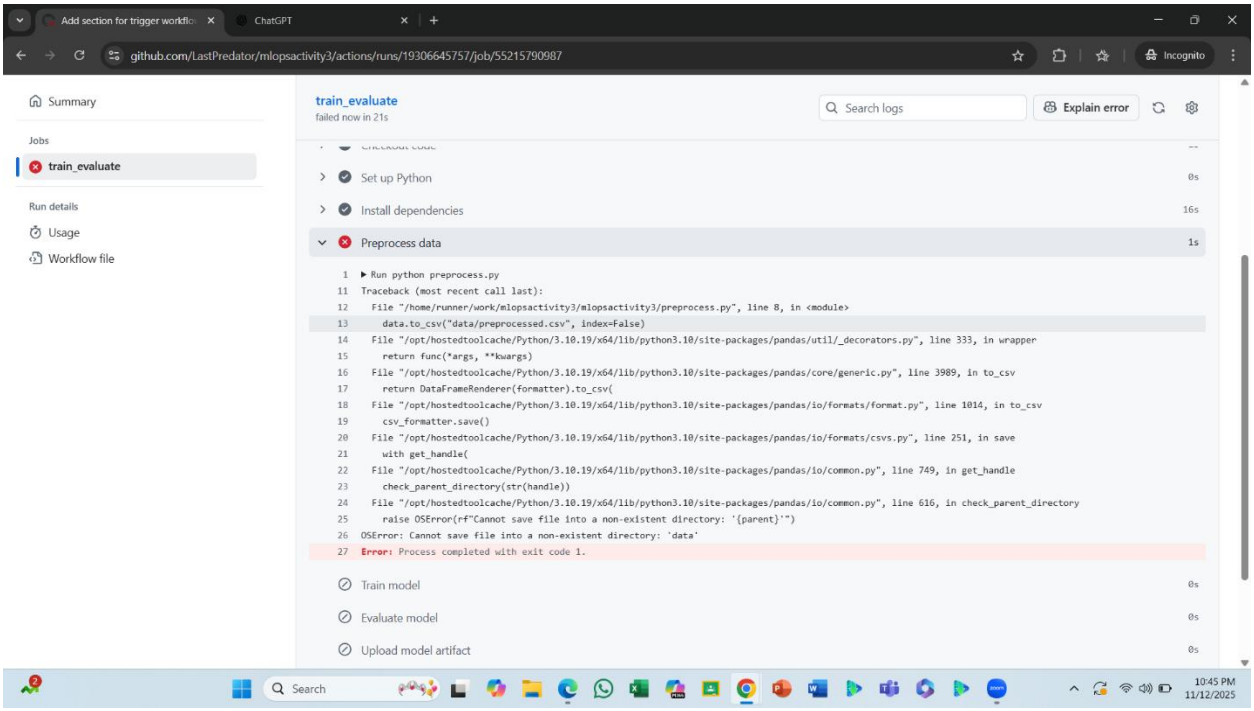
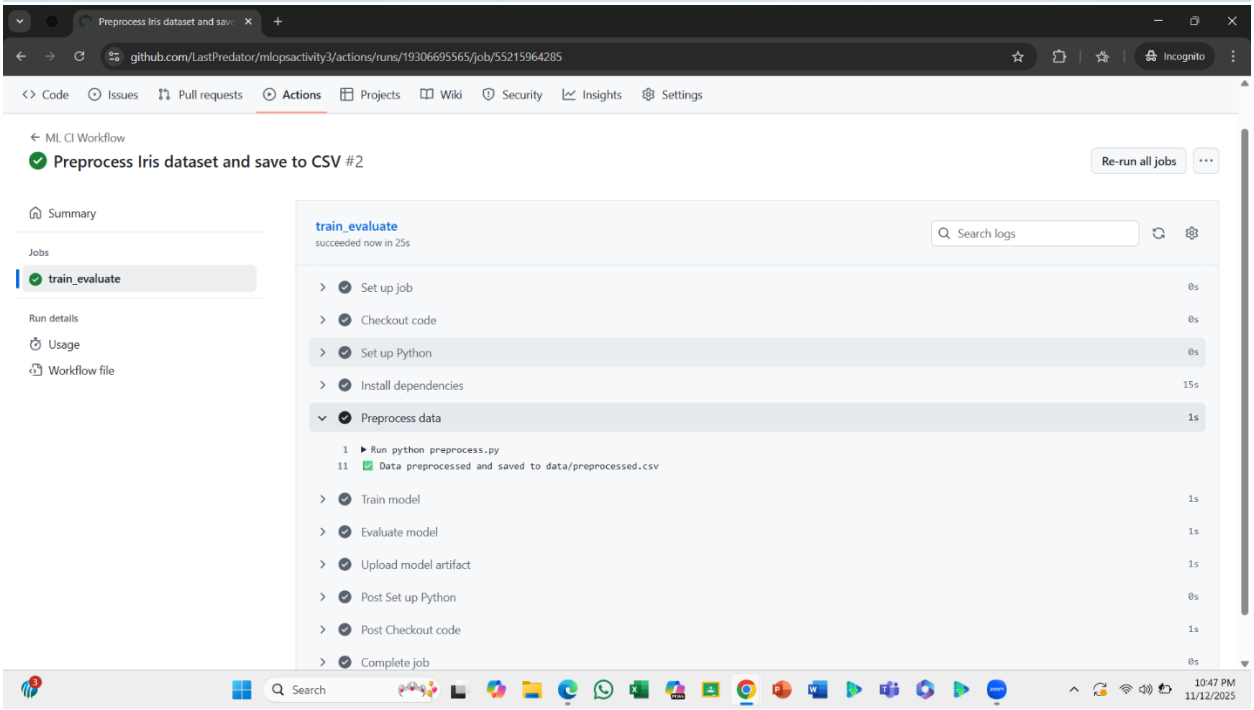
1. **CI/CD improves collaboration** by automating testing, versioning, and deployment — ensuring consistent, reproducible workflows and faster feedback across ML, data, and DevOps teams.
2. **If the score is below threshold**, the pipeline fails or stops deployment, alerts the team, and keeps the previous best model active.
3. **Retraining/drift detection** can be automated — monitor data drift, trigger retraining pipelines, re-evaluate, and redeploy only if performance improves.
4. **To deploy to production:**
    - Containerize code (Docker)
    - Orchestrate with CI/CD (GitHub Actions, Jenkins)
    - Use cloud infra (AWS, Kubernetes, SageMaker)
    - Monitor models and enable rollback.


Add section for trigger workflo
ChatGPT
github.com/LastPredator/mlopsactivity3/actions/runs/19306645757/job/55215790987
Incognito
Summary
Jobs
train_evaluate
Run details
Usage
Workflow file
train_evaluate
failed now in 21s
Search logs
Explain error
Set up Python 0s
Install dependencies 16s
Preprocess data 1s
Run python preprocess.py
Traceback (most recent call last):
File "/home/runner/work/mlopsactivity3/mlopsactivity3/preprocess.py", line 8, in <module>
data.to_csv("data/preprocessed.csv", index=False)
File "/opt/hostedtoolcache/Python/3.10.19/x64/lib/python3.10/site-packages/pandas/util/_decorators.py", line 333, in wrapper
return func(*args, **kwargs)
File "/opt/hostedtoolcache/Python/3.10.19/x64/lib/python3.10/site-packages/pandas/core/generic.py", line 3989, in to_csv
return DataFrameRenderer(formatter).to_csv(
File "/opt/hostedtoolcache/Python/3.10.19/x64/lib/python3.10/site-packages/pandas/io/formats/format.py", line 1014, in to_csv
csv_formatter.save()
File "/opt/hostedtoolcache/Python/3.10.19/x64/lib/python3.10/site-packages/pandas/io/formats/csvs.py", line 251, in save
with get_handle(
File "/opt/hostedtoolcache/Python/3.10.19/x64/lib/python3.10/site-packages/pandas/io/common.py", line 749, in get_handle
check_parent_directory(str(handle))
File "/opt/hostedtoolcache/Python/3.10.19/x64/lib/python3.10/site-packages/pandas/io/common.py", line 616, in check_parent_directory
raise OSError(rf"Cannot save file into a non-existent directory: '{parent}'")
OSError: Cannot save file into a non-existent directory: 'data'
Error: Process completed with exit code 1.
Train model 0s
Evaluate model 0s
Upload model artifact 0s
Search
10:45 PM
11/12/2025


Preprocess Iris dataset and save
github.com/LastPredator/mlopsactivity3/actions/runs/19306695565/job/55215964285
Incognito
Code
Issues
Pull requests
Actions
Projects
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Security
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Settings
ML CI Workflow
Preprocess Iris dataset and save to CSV #2
Re-run all jobs
Summary
Jobs
train_evaluate
Run details
Usage
Workflow file
train_evaluate
succeeded now in 25s
Search logs
Set up job 0s
Checkout code 0s
Set up Python 0s
Install dependencies 15s
Preprocess data 1s
Run python preprocess.py
Data preprocessed and saved to data/preprocessed.csv
Train model 1s
Evaluate model 1s
Upload model artifact 1s
Post Set up Python 0s
Post Checkout code 1s
Complete job 0s
Search
10:47 PM
11/12/2025