

1. Qdrant Cluster Details page (with Endpoint URL + Healthy status)

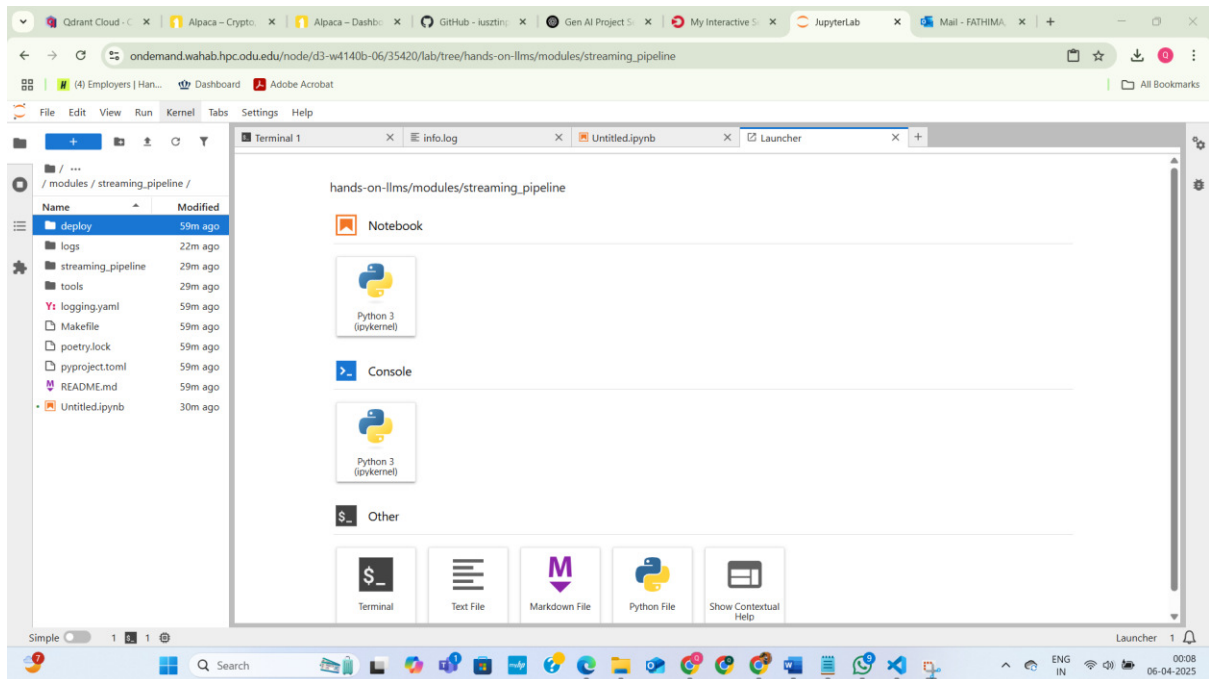
The screenshot shows the Qdrant Cloud dashboard. The left sidebar contains navigation links for Dashboard, Clusters, Hybrid Cloud, Backups, Access Management, Settings (Billing, Profile), and Need Help? (Get Support). The main content area displays the 'qfath001@odu.edu - Base Account' details. A status message indicates 'No automatic cluster suspension' with a 'Scale up cluster' button. Below this, a tabbed interface shows 'Overview', 'API Keys', 'Connect', 'Metrics', 'Requests', 'Backups', 'Configuration', 'Logs', and 'Cluster Deletion'. The 'API Keys' tab is active, showing a table titled 'Manage API Keys To Access Your Database Cluster'. The table has columns: NAME, API KEY, STATUS, VALID UNTIL, ACCESS, CREATED BY, and ACTIONS. One row is visible: 'auto-generated-api-key' with a masked API key, 'ACTIVE' status, and a 'MANAGE CLUSTER' button. The bottom of the dashboard includes links for Status, Documentation, Terms, Privacy, SLA, Security & Compliance, and Cookie consent.

NAME	API KEY	STATUS	VALID UNTIL	ACCESS	CREATED BY	ACTIONS
auto-generated-api-key	*****aqCzi6q8	ACTIVE	-	MANAGE CLUSTER	qfath001@odu.edu	...

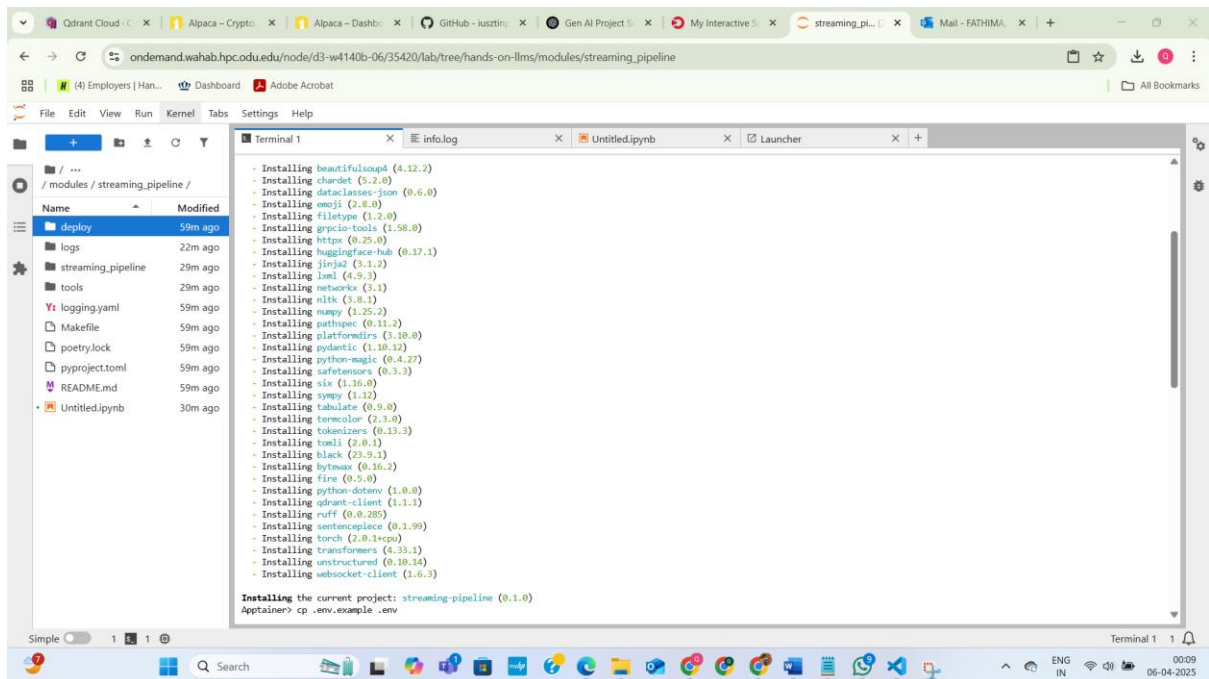
2. Alpaca Dashboard (Paper Trading) showing account is setup

The screenshot shows the Alpaca Markets Paper Trading dashboard. The left sidebar contains navigation links for Home, Account, Alpaca Connect, Plans & Features, API, Community, Support, and Legal. The main content area displays the 'Paper PA38YD7APT6A' account details. A search bar and a 'Cancel 0 selected' button are at the top. Below is a table with columns: Asset, Order Type, Side, Qty, Filled Qty, Avg. Fill Price, Status, Source, and Submit. The table is empty, with a message: 'No orders. Place a trade via the dashboard or the API to see this table populate.' To the right, there is a 'try it now' button and a section for 'API Keys' with fields for Endpoint, Key, and Secret. A note states: 'Note: Your secret key will disappear after refreshing or navigating away from this page.' Below the API Keys section is a 'Watchlist' section with an 'Edit' button and a message: 'No assets in watchlist'.

3. Jupyter file view of streaming_pipeline folder



4. Terminal after running make install



```
Settings Help
Terminal 1 x info.log x Untitled.ipynb x Untitled.ipynb
Python 3 (ipykernel)

[3]: env_vars = {
      "ALPACA_API_KEY": "f-----",
      "ALPACA_API_SECRET": "-----",
      "QDRANT_URL": "https://",
      "QDRANT_API_KEY": "eyJ",
      "AWS_ECR_REPO_NAME": "alpacas",
      "AWS_REGION": "eu-central-1",
      "AWS_PROFILE": "default"
    }

    with open(".env", "w") as f:
        for key, value in env_vars.items():
            f.write(f"{key}={value}\n")

[4]: cat .env

ALPACA_API_KEY=
ALPACA_API_SECRET=
QDRANT_URL=https://
QDRANT_API_KEY=eyJ
AWS_ECR_REPO_NAME=alpacas
AWS_REGION=eu-central-1
AWS_PROFILE=default

[ ]:
```

5. Terminal running make run_real_time with output:

```
poetry.lock 59m ago
pyproject.toml 59m ago
README.md 59m ago
Untitled.ipynb 30m ago

Apptainer> make run_real_time
RUST_BACKTRACE=full poetry run python -m bytewax.run.tools.run_real_time:build_flow
2025-04-05 23:38:05,969 - INFO - Initializing env vars...
2025-04-05 23:38:05,969 - INFO - Loading environment variables from: .env
Downloading tokenizer_config.json: 100% | 350/350 [00:00:00, 1.38kB/s]
Downloading vocab.txt: 100% | 232k/232k [00:00:00, 17.29kB/s]
Downloading tokenizer.json: 100% | 466k/466k [00:00:00, 52.49kB/s]
Downloading (.cial_tokens_map.json: 100% | 112/112 [00:00:00, 475kB/s]
Downloading config.json: 100% | 612/612 [00:00:00, 2.43kB/s]
Downloading model.safetensors: 100% | 90.9M/90.9M [00:00:00, 114kB/s]
2025-04-05 23:38:22,217 - INFO - HTTP Request: GET https://8029391d-780a-408a-94d0-2ebae9b5f41f.europa-west3-0.gcp.cloud.qdrant.io:6333/collections/alpaca_financial_news "HTTP/2 404 Not Found"
2025-04-05 23:38:27,365 - INFO - HTTP Request: DELETE https://8029391d-780a-408a-94d0-2ebae9b5f41f.europa-west3-0.gcp.cloud.qdrant.io:6333/collections/alpaca_financial_news "HTTP/2 200 OK"
2025-04-05 23:38:27,781 - INFO - HTTP Request: PUT https://8029391d-780a-408a-94d0-2ebae9b5f41f.europa-west3-0.gcp.cloud.qdrant.io:6333/collections/alpaca_financial_news "HTTP/2 200 OK"
2025-04-05 23:38:27,878 - INFO - [AlpacaNewsStream]: Received message: [{"t": "success", "msg": "connected"}]
2025-04-05 23:38:27,878 - INFO - [AlpacaNewsStream]: Connected to Alpaca News Stream.
2025-04-05 23:38:27,952 - INFO - [AlpacaNewsStream]: Received message: [{"t": "success", "msg": "authenticated"}]
2025-04-05 23:38:27,952 - INFO - [AlpacaNewsStream]: Authenticated with Alpaca News Stream.
2025-04-05 23:38:27,959 - INFO - [AlpacaNewsStream]: Received message: [{"t": "subscription", "news": [""]}]]
2025-04-05 23:38:27,959 - INFO - [AlpacaNewsStream]: Subscribed to Alpaca News Stream.
```

6. Visualization screenshots from Comet

```
[5]: !cp .env.example .env

[8]: env_vars = {
      "COMET_API_KEY": "-----",
      "COMET_WORKSPACE": "qfath001",
      "COMET_PROJECT_NAME": "hands-on-llms"
    }

    # Write these environment variables into a .env file
    with open('.env', 'w') as f:
        for key, value in env_vars.items():
            f.write(f"{key}={value}\n")

[ ]: !make train_local

Running training pipeline locally using the production config...
poetry run python -m tools.train_run --config_file configs/training_config.yaml --output_dir ./output --dataset_dir ./dataset
2025-04-06 23:05:10,412 - INFO - Initializing env vars...
2025-04-06 23:05:10,412 - INFO - Loading environment variables from: .env
```

comet.com/qfath001/hands-on-llms/view/new/experiments

comet qfath001 > hands-on-llms

View: Personal view Options Add to report

Experiments

Filters Sort Columns Group by

All Selected Hidden

NAME	TAGS	SERVER END TIME	FILE NAME	DURATION	USER NAME
general_lark_8170		4/6/25 11:23 PM	train_run.py	00:04:16	qfath001

Showing 1-1 of 1

comet.com/qfath001/hands-on-llms/575cfe22779a4359bcd2c5fe6342a6f6?compareXAxis=step&experiment-tab=panels&showOutliers=true&smoothing=0&xAxis=step

Return to experiments

View: Personal view

NAME	TAGS	SERVER END TIME	EXPERIMENT KEY	DURATION	Register model	Reproduce
general_lark_8170		4/6/25 11:23 PM	575cfe22779a...	00:04:16		

Search by name

Search panel (regex)

X-axis Step

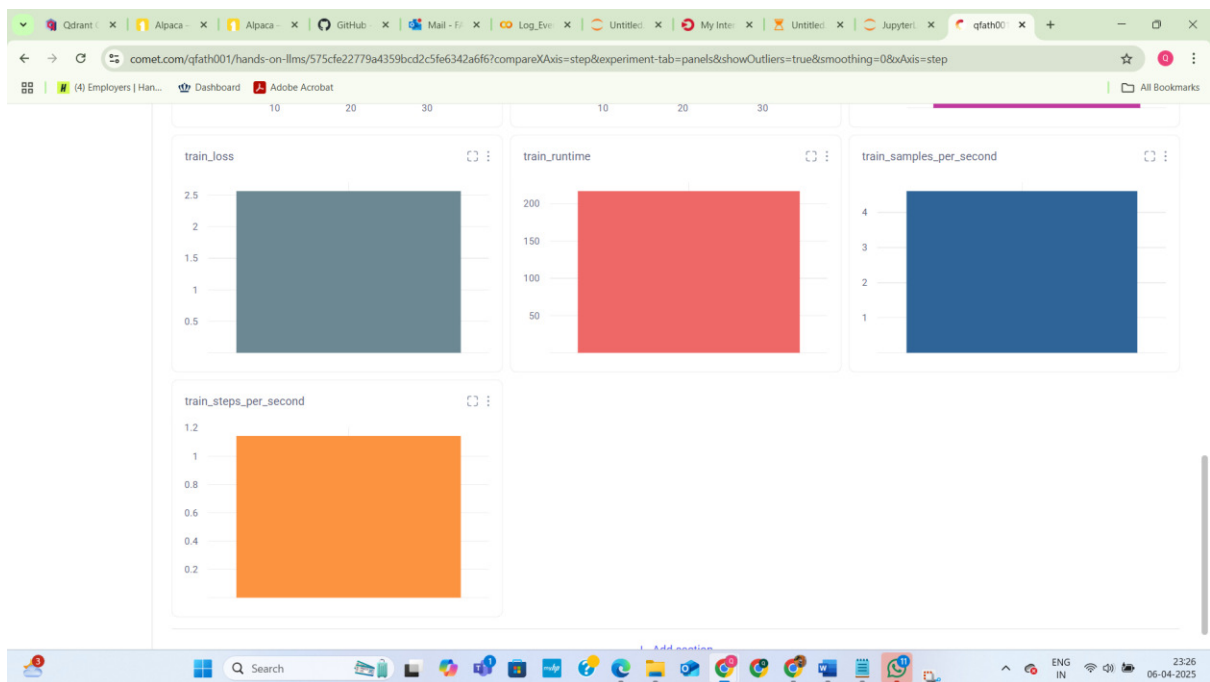
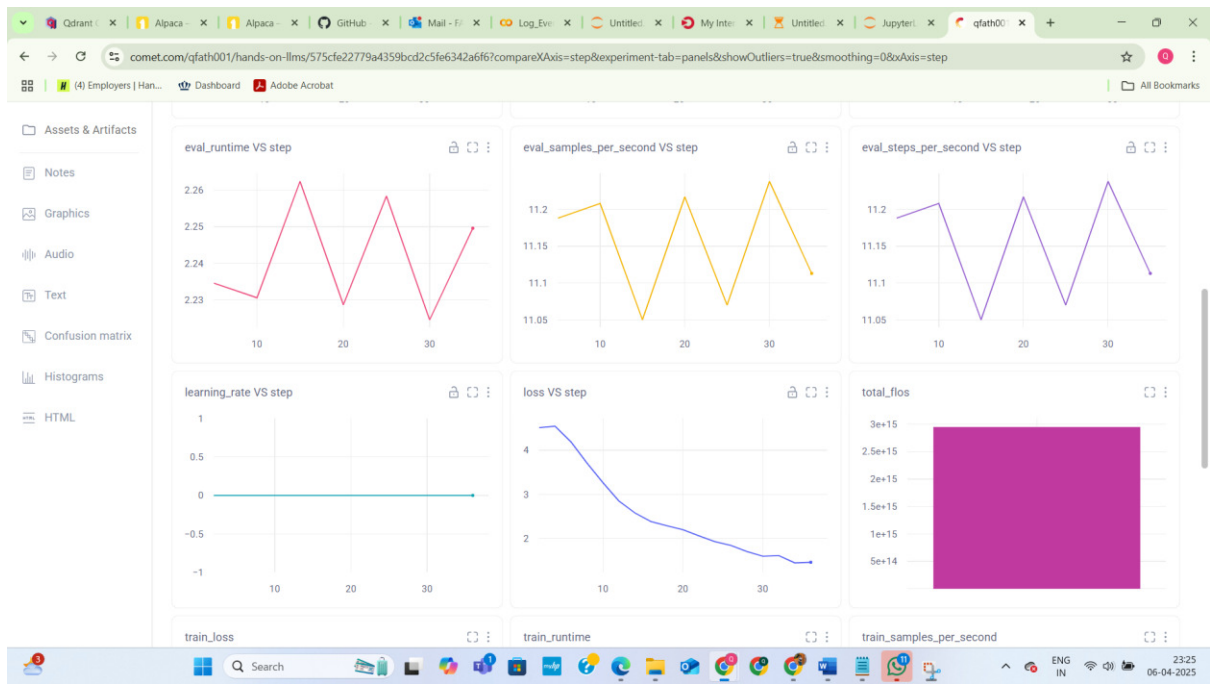
Y-axis smoothing 0

Metrics (13)

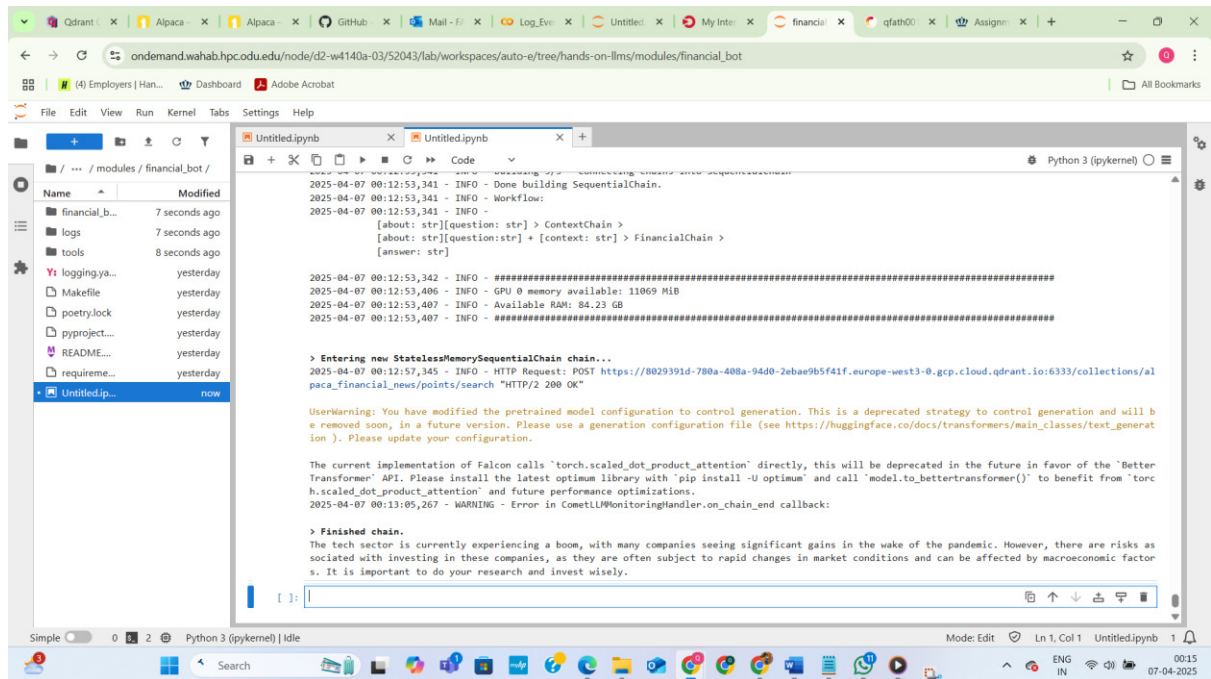
epoch VS step

eval_loss VS step

eval_perplexity VS step



7. Financial Bot Response Generated via make run Command



```
2025-04-07 00:12:53,341 - INFO - Done building SequentialChain.
2025-04-07 00:12:53,341 - INFO - Workflow:
2025-04-07 00:12:53,341 - INFO - [about: str][question: str] > ContextChain >
[about: str][question: str] + [context: str] > FinancialChain >
[answer: str]

2025-04-07 00:12:53,342 - INFO - #####
2025-04-07 00:12:53,406 - INFO - GPU 0 memory available: 11069 MiB
2025-04-07 00:12:53,407 - INFO - Available RAM: 84.23 GB
2025-04-07 00:12:53,407 - INFO - #####

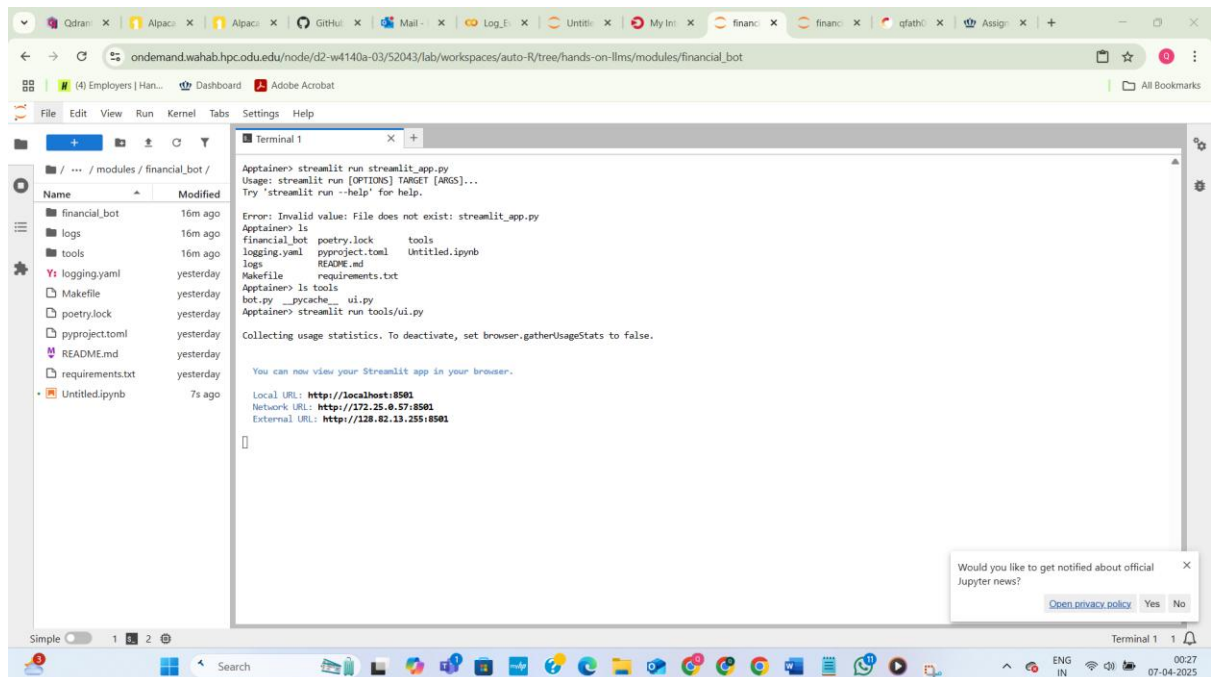
> Entering new StatelessMemorySequentialChain chain...
2025-04-07 00:12:57,345 - INFO - HTTP Request: POST https://8029391d-780a-408a-94d0-2ebae9b5f41f.europe-west3-0.gcp.cloud.qdrant.io:6333/collections/all
paca_financial_news/points/search "HTTP/2 200 OK"

UserWarning: You have modified the pretrained model configuration to control generation. This is a deprecated strategy to control generation and will be
removed soon, in a future version. Please use a generation configuration file (see https://huggingface.co/docs/transformers/main_classes/text_generat
ion ). Please update your configuration.

The current implementation of Falcon calls 'torch.scaled_dot_product_attention' directly, this will be deprecated in the future in favor of the 'Better
Transformer' API. Please install the latest optimum library with 'pip install -U optimum' and call 'model.to_bettertransformer()' to benefit from 'torc
h.scaled_dot_product_attention' and future performance optimizations.
2025-04-07 00:13:05,267 - WARNING - Error in CometLLMMonitoringHandler.on_chain_end callback:

> Finished chain.
The tech sector is currently experiencing a boom, with many companies seeing significant gains in the wake of the pandemic. However, there are risks as
sociated with investing in these companies, as they are often subject to rapid changes in market conditions and can be affected by macroeconomic factor
s. It is important to do your research and invest wisely.
```

8. Launching Financial Bot Streamlit App



```
Apptainer: streamlit run streamlit_app.py
Usage: streamlit run [OPTIONS] TARGET [ARGS]...
Try 'streamlit run --help' for help.

Error: Invalid value: File does not exist: streamlit_app.py
Apptainer> ls
financial_bot poetry.lock tools
logging.yaml pyproject.toml Untitled.ipynb
logs README.md
Makefile requirements.txt
Apptainer> ls tools
bot.py __pycache__ ui.py
Apptainer> streamlit run tools/ui.py

Collecting usage statistics. To deactivate, set browser.gatherUsageStats to false.

You can now view your Streamlit app in your browser.

Local URL: http://localhost:8501
Network URL: http://172.25.0.57:8501
External URL: http://128.82.13.255:8501
```

9. Financial Bot Prompt and LLM Output Logged to Comet

comet

qfath001 > financial-bot > copper_inlay_6426

Try Opik

[Return to experiments](#)

View: Personal view

NAME	TAGS	SERVER END TIME	EXPERIMENT KEY	DURATION	
copper_inlay_6426		4/7/25 12:35 AM	b5a0e049f8c2...	00:00:00	Register model Reproduce

Panels

Other

Code

Hyperparameters

Metrics

Graph definition

Output

System metrics

Installed packages

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NAME	VALUE	
Name	copper_inlay_6426	
prompt.input	>INTRODUCTION: You are a helpful assistant, with financial expertise. >YOUWORK: I am a student and I have some money that I want to in...	
prompt.output	The financial market appears strong with infrastructure investment. You could consider diversified ETFs focused on commodities like copp...	

Search

ENG IN

00:38

07-04-2025