Data and AI: LLMOps in a Day

Workshop

Duration: 1 day

Focus Area: Business/IT Alignment

Difficulty: 300 - Advanced

Overview

Learn how to build solutions with Large Language Models in a day. This includes learning Azure Machine Learning Prompt Flow, Content Safety, Azure OpenAI, LLMs solutions Evaluation and Monitoring.

Objectives

After completing this training, students will be able to:

- Understand how LLMOps can be implemented.
- Author LLMs orchestration flows.
- Easily tune prompts with variants and versions.
- Integrate prompt flows with CI/CD pipelines for automated evaluation and deployment.
- Understand how to Monitor LLMs solutions.
- Leverage features within Content Safety for Responsible AI with LLMs.

Course Material

- Azure Machine Learning Service
- Azure OpenAI Service
- Azure Content Safety
- Evaluating using Prompt Flow Azure Machine Learning
- Monitoring with Azure Machine Learning

Key Takeaways

- AzureML Prompt Flow
- Azure OpenAI
- Responsible AI

Hands-on Labs

- Most of the concepts covered above will be supported by hands-on labs and demos.

Agenda

- Introduction to LLMs: GPTs and other models.
- Azure OpenAI Service Overview.
- LLMOps Concepts.
- Azure Machine Learning Service Overview.
- Introduction to AzureML prompt flow.
- Building LLMs Orchestration Flows.
- Evaluating LLMs Solutions.
- Deploying LLMs.
- Monitoring prompt flow.
- Responsible AI with LLMs.
- Best Practices and Lessons Learned

Microsoft

Course Details

Lesson 1: Introduction to LLMs and Azure AI Services

- Introduction to LLMs: GPTs and other models.
- LLMOps: applying MLOps principles to LLM Solutions.
- Azure OpenAI Service Overview.
- Azure Machine Learning Service Overview.

Lesson 2: Building LLMs Orchestration Flows

- AzureML Prompt flow.
- Building LLMs Orchestration Flows.

Lesson 3: Evaluating and Deploying LLMs

- Evaluating LLMs Solutions.
- Deploying LLMs Flows.

Lesson 4: Monitoring and Responsible AI

- Monitoring LLMs orchestration flows.
- Content safety to protect your solution.

Lesson 5: Automating Everything

- Github and Github Actions.
- Evaluation and Deployment Automation.

Lesson 6: Best Practices and Lessons Learned

- Learn some best practices on service limits, setting up workspaces, and Security.
- Final discussions and wrap-up.

Recommended Qualifications

This course is designed for ML Engineers and App developers who will work on Large Language Model solution projects. Additionally, we recommend that participants already have some exposure to Machine Learning and Large Language Model concepts and techniques.

While the basic concepts of Azure or Python Scripting are utilized, they will not be covered in this course. It is expected that attendees already possess these skills/experience.

Hardware Requirements

- An Intel Core-i5-based PC
- Microsoft/Windows Live ID to connect to the virtual environment 4 GB RAM
- 128 GB HDD
- Windows 7 SP1 or later
- Internet access with at least 10 Mbps bandwidth
- per student.