

Operationalize machine learning and generative AI solutions

This course prepares learners to design, implement, and operate Machine Learning Operations (MLOps) and Generative AI Operations (GenAIOps) solutions on Azure. It covers building secure and scalable AI infrastructure, managing the full lifecycle of traditional machine learning models with Azure Machine Learning, and deploying, evaluating, monitoring, and optimizing generative AI applications and agents using Microsoft Foundry. Learners will gain hands-on knowledge of automation, continuous integration and delivery, infrastructure as code, and observability by using tools such as GitHub Actions, Azure CLI, and Bicep. The course emphasizes collaboration with data science and DevOps teams to deliver reliable, production-ready AI systems aligned with modern MLOps and GenAIOps best practices.



Training recipients

The training is intended for:

- AI Engineers
- Data Scientists



Benefits

By completing this course, students will achieve the following objectives:

- Learn how to find the best machine learning model with automated machine learning (AutoML), MLflow-tracked notebooks, and the Responsible AI dashboard.
- Learn how to operationalize generative AI applications using the complete GenAIOps lifecycle. This

course covers planning and preparing GenAIOps solutions, managing prompts for agents with version control, evaluating and optimizing agents through structured experiments, automating evaluations with Microsoft Foundry and GitHub Actions, monitoring application performance and costs, and implementing distributed tracing to debug complex AI workflows.



Training program

1. Operationalize machine learning models (MLOps)

- Experiment with Azure Machine Learning
- Perform hyperparameter tuning with Azure Machine Learning
- Run pipelines in Azure Machine Learning
- Trigger Azure Machine Learning jobs with GitHub Actions
- Trigger GitHub Actions with feature-based development
- Work with environments in GitHub Actions
- Deploy a model with GitHub Actions

2. Operationalize generative AI applications (GenAIOps)

- Plan and prepare a GenAIOps solution
- Manage prompts for agents in Microsoft Foundry with GitHub
- Evaluate and optimize AI agents through structured experiments
- Automate AI evaluations with Microsoft Foundry and GitHub Actions
- Monitor your generative AI application



Expected preparation of the participant

- Programming experience with Python or R
- Familiarity with fundamental generative AI concepts and services in Azure.
- Experience developing and training machine learning models
- Familiarity with basic Azure Machine Learning concepts



Training Includes

- * electronic handbook available at: <https://learn.microsoft.com/pl-pl/training/>
- * access to Altkom Akademia student portal



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Language

- **Training:** English
- **Materials:** English