



MICROSOFT TRAINING

Mlops Azure Data Science Deployment Course

Master MLOps practices on Azure to deploy, manage, and scale your data science models efficiently. Drive production readiness and operational excellence.

DURATION

2 hours

LEVEL

Intermediate

FORMAT

Instructor-Led

- Globally Recognized Certification

- Expert-Led Hands-On Training

- Flexible Scheduling

Computer Pride | 1st Floor, ICEA Building, Kenyatta Avenue, Nairobi | www.computer-pride.co.ke

COURSE OVERVIEW

This intermediate-level "MLOps Azure Data Science Deployment Course" is meticulously designed to equip data scientists and machine learning engineers with the essential skills to operationalize machine learning models using Microsoft Azure. Over just two intensive hours, you will delve into the core principles of MLOps, a discipline that brings DevOps best practices to the machine learning lifecycle. The course emphasizes automating model deployment, monitoring, and management within the robust Azure ecosystem.

Participants will gain hands-on experience with key Azure services, including Azure Machine Learning and Azure DevOps, learning how to build continuous integration and continuous deployment (CI/CD) pipelines for their ML solutions. This course empowers you to transform experimental models into reliable, scalable, and maintainable production systems, ensuring faster time-to-market for your AI initiatives. By mastering these deployment techniques, you will significantly enhance your ability to deliver tangible business value through operationalized data science.

Duration	2 hours
Level	Intermediate
Vendor	Microsoft

COURSE CURRICULUM

01 Module 1: Introduction to MLOps and Azure ML for Deployment

- Understanding MLOps principles and lifecycle
- Challenges in ML model deployment
- Overview of Azure Machine Learning services for MLOps
- Introduction to Azure DevOps for ML pipelines

02 Module 2: Setting Up Your MLOps Environment in Azure

- Creating and configuring an Azure ML Workspace
- Managing compute targets for model training and inference
- Setting up Azure Repos for code version control
- Configuring service connections to Azure ML in Azure DevOps

03 Module 3: Registering and Managing ML Models

- Best practices for model versioning in Azure ML
- Registering trained models in the Azure ML Model Registry
- Tagging and cataloging models for discoverability
- Understanding model artifacts and dependencies

04 Module 4: Deploying Models to Production Endpoints

- Choosing appropriate deployment targets: Azure Container Instances (ACI) vs. Azure Kubernetes Service (AKS)
- Creating Docker images for model inference
- Deploying models as real-time endpoints (REST API)
- Testing and validating deployed models

05 Module 5: Building CI/CD Pipelines for ML with Azure DevOps

- Introduction to Azure Pipelines for MLOps
- Automating model training and registration using CI
- Automating model deployment and testing using CD

- Implementing release gates and approvals for production deployment

CAREER PATHWAYS

Graduates of this program are prepared for the following roles:

- > **MLOps Engineer (Azure Specialist)**
- > **Azure Machine Learning Deployment Specialist**
- > **Production Data Scientist**

FREQUENTLY ASKED QUESTIONS

Q: What prior knowledge or prerequisites are recommended before taking this MLOps Azure Data Science Deployment course?

To get the most out of this intermediate-level course, participants should have a foundational understanding of machine learning concepts and some experience with Python programming. Familiarity with basic Azure services (e.g., creating resources, navigating the portal) and a conceptual grasp of DevOps principles will also be highly beneficial. While not strictly required, prior exposure to Azure Machine Learning will help accelerate your learning curve on deployment specifics.

Q: How will this course specifically enhance my ability to move machine learning models from development to production efficiently on Azure?

This course focuses directly on the operationalization aspect of data science. You will learn to implement MLOps best practices within Azure, allowing you to automate the entire lifecycle from model training to robust deployment. Specifically, you'll master building CI/CD pipelines using Azure DevOps for ML models, efficiently versioning and registering models, and deploying them to scalable Azure endpoints like ACI or AKS. This enables rapid, reliable, and repeatable deployment, significantly reducing manual effort and potential errors in productionizing ML solutions.

Q: Which specific Azure services and tools will I gain practical experience with for deploying and managing ML models?

This course provides hands-on exposure to critical Azure services and tools for MLOps and deployment. You will extensively work with Azure Machine Learning for model registration, endpoint creation, and lifecycle management. Furthermore, you will utilize Azure DevOps, specifically Azure Repos for source control and Azure Pipelines for building automated CI/CD workflows tailored for machine learning models. You'll also learn to deploy models to Azure Container Instances (ACI) and understand when to leverage Azure Kubernetes Service (AKS) for more complex, scalable deployments.

ABOUT COMPUTER PRIDE



East Africa's Premier IT Training Center

With over 15 years of excellence, Computer Pride delivers globally recognized certification programs from leading technology vendors. Located on Kenyatta Avenue in Nairobi's CBD, our state-of-the-art facilities and expert instructors have empowered thousands of professionals across East Africa.

15+

Years of Excellence

10,000+

Professionals Trained

50+

Vendor Certifications

READY TO ENROL?

Take the next step in your technology career.

Location

1st Flr, ICEA Building
Kenyatta Ave, Nairobi

Email

info@computer-pride.co.ke

Phone

+254 705 900 900

www.computer-pride.co.ke