MLOps Engineering on AWS – Intensive Training («AWSS07»)

Could your Machine Learning (ML) workflow use some DevOps agility? MLOps Engineering on AWS will help you bring DevOps-style practices into the building, training, and deployment of ML models.

Duration: 3 days
Price: 2'500.–
Course documents: Digital original AWS courseware

Content

ML data platform engineers, DevOps engineers, and developers/operations staff with responsibility for operationalizing ML models will learn to address the challenges associated with handoffs between data engineers, data scientists, software developers, and operations through the use of tools, automation, processes, and teamwork. By the end of the course, go from learning to doing by building an MLOps action plan for your organization.

Day 1
Module 0: Welcome

- Course introduction

Module 1: Introduction to MLOps

- Machine learning operations
- Goals of MLOps
- Communication
- From DevOps to MLOps
- ML workflow
- Scope
- MLOps view of ML workflow
- MLOps cases

Module 2: MLOps Development

- Intro to build, train, and evaluate machine learning models
- MLOps security
- Automating
- Apache Airflow
- Kubernetes integration for MLOps
- Amazon SageMaker for MLOps
- Lab: Bring your own algorithm to an MLOps pipeline
- Demonstration: Amazon SageMaker
- Intro to build, train, and evaluate machine learning models
- Lab: Code and serve your ML model with AWS CodeBuild
- Activity: MLOps Action Plan Workbook

Day 2
Module 3: MLOps Deployment

- Introduction to deployment operations
- Model packaging
- Inference
- Lab: Deploy your model to production
- SageMaker production variants

- Deployment strategies
- Deploying to the edge
- Lab: Conduct A/B testing
- Activity: MLOps Action Plan Workbook

Day 3
Module 4: Model Monitoring and Operations

- Lab: Troubleshoot your pipeline
- The importance of monitoring
- Monitoring by design
- Lab: Monitor your ML model
- Human-in-the-loop
- Amazon SageMaker Model Monitor
- Demonstration: Amazon SageMaker Pipelines, Model Monitor, model registry, and Feature
- Store
- Solving the Problem(s)
- Activity: MLOps Action Plan Workbook

Module 5: Wrap-up

- Course review
- Activity: MLOps Action Plan Workbook
- Wrap-up

Key Learnings

- Deploying your own models in the AWS Cloud
- Automating workflows for building, training, testing, and deploying ML models
- The different deployment strategies for implementing ML models in production
- Monitoring for data drift and concept drift that could affect prediction and alignment with business expectations

Target audience

This course is intended for the following job roles:

- DevOps
- Machine Learning & AI

Requirements

We recommend that attendees of this course have the following prerequisites:

- The Elements of Data Science (free digital course)
- Machine Learning Terminology and Process (free digital course)

and have attended the following course (or equivalent knowlege):

- AWS Technical Essentials – Intensive Training («AWSE01»)
- Practical Data Science with Amazon SageMaker – Intensive Training
- DevOps Engineering on AWS – Intensive Training («AWSS02»)

Certification

This course can be used as preparation for the following official **AWS Certification:** AWS Certified Machine Learning – Specialty

Further courses

- Amazon SageMaker Studio for Data Scientists – Intensive Training («AWSB10»)

Any questions?

We are happy to advise you on +41 44 447 21 21 or info@digicomp.ch. You can find detailed information about dates on www.digicomp.ch/courses-digital-transformation-technologies/cloud/amazon-web-services-aws/aws-devops/course-mlops-engineering-on-aws-intensive-training