

Practical Data Science with Amazon SageMaker – Intensive Training («AWSB03»)

Learn about a day in the life of a data scientist from an experienced AWS instructor.

Duration: 1 day

Price: 900.–

Content

Artificial intelligence and machine learning (AI/ML) are becoming mainstream. In this course, you will spend a day in the life of a data scientist so that you can collaborate efficiently with data scientists and build applications that integrate with ML. You will learn the basic process data scientists use to develop ML solutions on Amazon Web Services (AWS) with Amazon SageMaker. You will experience the steps to build, train, and deploy an ML model through instructor-led demonstrations and labs.

1 Introduction to Machine Learning

- Benefits of machine learning (ML)
- Types of ML approaches
- Framing the business problem
- Prediction quality
- Processes, roles, and responsibilities for ML projects

2 Preparing a Dataset

- Data analysis and preparation
- Data preparation tools
- Demonstration: Review Amazon SageMaker Studio and Notebooks
- Hands-On Lab: Data Preparation with SageMaker Data Wrangler

3 Training a Model

- Steps to train a model
- Choose an algorithm
- Train the model in Amazon SageMaker
- Hands-On Lab: Training a Model with Amazon SageMaker
- Amazon CodeWhisperer
- Demonstration: Amazon CodeWhisperer in SageMaker Studio Notebooks

4 Evaluating and Tuning a Model

- Model evaluation
- Model tuning and hyperparameter optimization
- Hands-On Lab: Model Tuning and Hyperparameter Optimization with Amazon SageMaker

5 Deploying a Model

- Model deployment
- Hands-On Lab: Deploy a Model to a Real-Time Endpoint and Generate a Prediction

6 Operational Challenges

- Responsible ML
- ML team and MLOps
- Automation

- Monitoring
- Updating models (model testing and deployment)

7 Other Model-Building Tools

- Different tools for different skills and business needs
- No-code ML with Amazon SageMaker Canvas
- Demonstration: Overview of Amazon SageMaker Canvas
- Amazon SageMaker Studio Lab
- Demonstration: Overview of SageMaker Studio Lab
- (Optional) Hands-On Lab: Integrating a Web Application with an Amazon SageMaker Model Endpoint

Key Learnings

- Discussing the benefits of different types of machine learning for solving business problems
- Describing the typical processes, roles, and responsibilities on a team that builds and deploys ML systems
- Explaining how data scientists use AWS tools and ML to solve a common business problem
- Summarizing the steps a data scientist takes to prepare data
- Summarizing the steps a data scientist takes to train ML models
- Summarizing the steps a data scientist takes to evaluate and tune ML models
- Summarizing the steps to deploy a model to an endpoint and generate predictions
- Describing the challenges for operationalizing ML models
- Matching AWS tools with their ML function

Methodology & didactics

This course allows you to test new skills and apply knowledge to your working environment through a variety of practical exercises.

Target audience

This course is aimed at data science practitioners, machine learning practitioners, application developers and DevOps engineers as well as systems architects.

Requirements

- Entry-level knowledge of Python programming
- Entry-level knowledge of statistics
- The following course or equivalent knowledge is required:
 - [AWS Technical Essentials – Intensive Training \(«AWSE01»\)](#)

Further courses

- [MLOps Engineering on AWS – Intensive Training \(«AWSS07»\)](#)

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-machine-learning-ai/course-practical-data-science-with-amazon-sagemaker-intensive-training

