€TRAINING

Machine Learning with Amazon SageMaker

29 July - 2 August 2024
London (UK)
Landmark Office Space

Machine Learning with Amazon SageMaker

REF: B1741 DATE: 29 July - 2 August 2024 Venue: London (UK) - Landmark Office Space Fee: 5850 Euro

Introduction

With the knowledge you gain from this course, you can quickly develop Machine Learning solutions on Amazon Web Services AWS.

You will be introduced to techniques for data exploration to help you find patterns, meaning, and value in your company data through hands-on laboratories and practical activities.

Course Objectives

At the end of the course, participants will be able to:

- Understand Machine Learning ML concepts
- Prepare your data
- Upload your dataset to Amazon SageMaker
- Train, analyze, and tune an ML model
- Analyze and publish your results

Targeted Audience

Anyone who needs to develop machine learning solutions to analyze data and wants to take use of Amazon's cloud-based data science platform.

Course Outline

Unit 1: Introduction & Preparing your dataset

- Overview of key Machine Learning and Deep Learning concepts
- Getting about in AWS
- Overview of SageMaker features
- Taking your first look at SageMaker studio
- Identifying your data and articulating your problem
- Format data for consistency
- Cleaning and validating your data
- Uploading to SageMaker

Unit 2: Data Analysis & Data Visualization

- Clustering
- Trend analysis
- Finding other relationships between different types of data
- Frequency tables
- Cross-tabulation tables
- Bar charts
- Line graphs
- Pie charts

- Heat Maps
- Scatter graphs

Unit 3: Training and Deploying your Model

- Creating a Training job
- Assigning Compute resources
- Selecting the right algorithm
- Overview of using custom code Python, TensorFlow
- SageMaker Hosting Services
- Configuring and creating an HTTPS endpoint

Unit 4: SageMaker Batch Transforms & Validating your Model

- Making inferences from your dataset
- Indexing and real-time indices
- Using Batch Transform to preprocess data to train a new model
- SageMaker Debugger
- Offline testing
- Online testing
- Validating using a holdout set

Unit 5: Model Tuning & Deploying and sharing using SageMaker Feature Store

- Defining metrics
- Hyperparameter tuning
- Automatic model tuning
- Creating, Storing and Sharing Features
- Online / Offline
- Feature Groups
- Discovery
- Batch Inference
- Feature Data Ingestion