Deep Learning on AWS

This course will introduce you to cloud-based Deep Learning solutions for Amazon Web Services (AWS). The training will show what Deep Learning is useful for and explain its different concepts. In this course, you will also learn how to run your models in the cloud using Amazon Elastic Compute Cloud (Amazon EC2), Deep Learning, Amazon Machine Image (AMI) and MXNet Framework. You will also gain a better understanding of how to deploy your Deep Learning models using AWS services such as AWS Lambda and Amazon EC2 Container Service (Amazon ECS) as you develop intelligent systems on AWS based on Deep Learning.

Course Contents
- Module 1: Machine learning overview
- Module 2: Introduction to deep learning
- Module 3: Introduction to Apache MXNet
- Module 4: ML and DL architectures on AWS

You have access to the labs for another 14 days after the course. This way you can repeat exercises or deepen them individually.

Target Group
- Developers who are responsible for developing Deep Learning applications,

- Developers who understand concepts behind Deep Learning and want to implement a Deep Learning solution on AWS

Prerequisites
We recommend that participants of this course meet the following prerequisites:

- Basic understanding of machine learning processes
- Basic understanding of core AWS services such as Amazon EC2 and knowledge of the AWS SDK
- Basic knowledge of a scripting language, e.g. Python

Part of the training is hands-on lab exercises with the AWS environment. In order to an internet-enabled notebook (Windows, Linux, MacOS) is a prerequisite.

Important: Therefore, please bring your notebook to the course! If this is not possible, please contact us in advance.

Course Target
Please note our overview AWS Trainings!

This Course in the Web
You can find the up-to-date information and options for ordering under the following link: www.experteach-training.com/go/**AWDL**

Reservation
On our Website, you can reserve a course seat for 7 days free of charge and in an non-committal manner. This can also be done by phone under +49 6074/4868-0.

Guaranteed Course Dates
To ensure reliable planning, we are continuously offering a wide range of guaranteed course dates.

Your Tailor-Made Course!
We can precisely customize this course to your project and the corresponding requirements.

Training		Prices, excl. of V.A.T.
Classes in Germany	**1 Day**	**€ 750**
Online Training	**1 Day**	**€ 750**
Dates upon request		

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Amazon Web Services (AWS)

Module 1: Machine learning overview
A brief history of AI, ML, and DL
The business importance of ML
Common challenges in ML
Different types of ML problems and tasks
AI on AWS

Module 2: Introduction to deep learning
Introduction to DL
The DL concepts
A summary of how to train DL models on AWS
Introduction to Amazon SageMaker
Hands-on lab: Spinning up an Amazon SageMaker
notebook instance and running a multi-layer
perceptron neural network model

Module 3: Introduction to Apache MXNet
The motivation for and benefits of using MXNet and
Gluon
Important terms and APIs used in MXNet
Convolutional neural networks (CNN) architecture
Hands-on lab: Training a CNN on a CIFAR-10 dataset

Module 4: ML and DL architectures on AWS
AWS services for deploying DL models (AWS Lambda,
AWS IoT Greengrass, Amazon ECS, AWS
Elastic Beanstalk)
Introduction to AWS AI services that are based on DL
(Amazon Polly, Amazon Lex, Amazon
Rekognition)
Hands-on lab: Deploying a trained model for
prediction on AWS Lambda