

# Deep Learning on AWS

Duration: 1 day

Audience: Professionnel TI

## Who is this training for?

- Individuals responsible for developing deep learning applications
- Individuals who want to understand the fundamental concepts of deep learning and how to implement a deep learning solution on AWS

## Training objectives

- Define machine learning and deep learning concepts
- Identify concepts in a deep learning ecosystem
- Leverage Amazon SageMaker and MXNet programming frameworks for deep learning workloads
- Design AWS solutions that can do deep learning deployments

## Summary

In this course, you will learn about deep learning cloud solutions on the AWS platform. You'll learn how to run your models on the cloud with a deep learning Amazon Machine Image (AMI) on Amazon EC2 and Apache MXNet on AWS frameworks. In addition, you will learn how to use Amazon SageMaker and deploy your deep learning models using AWS services such as AWS Lambda and Amazon Elastic Container Service (Amazon ECS) while designating intelligent systems on AWS.

## Course outline

- Define machine learning and deep learning concepts
- Identify concepts in a deep learning ecosystem
- Leverage Amazon SageMaker and MXNet programming frameworks for deep learning workloads
- Make AWS solutions capable of deep learning deployments

## Approach and methodology

Practical and advanced approach combining focused theory and intensive technical workshops. Participants gradually design, train, and deploy deep learning models on AWS through real-world exercises inspired by real-world cases. They experiment with the different stages of the model lifecycle (data preparation, training, evaluation, optimization, and deployment) using services like Amazon SageMaker. The training focuses on learning by doing, supervised experimentation and analysis of results in order to develop an in-depth understanding of the mechanisms of deep learning. Exchanges, good practices and feedback from the trainer make it possible to strengthen autonomy and the ability to apply these skills in concrete professional contexts.

### **Prerequisites**

- Know Python
- Have a basic understanding of networking

### **Recommendations**

- Strong foundation in machine learning and artificial intelligence
- Proficient in Python Knowledge of neural network concepts (deep learning)
- Experience with deep learning frameworks (TensorFlow or PyTorch)
- Familiarity with AWS services (EC2, S3, SageMaker)