AMBIENT-IT

+33 (0)1 48 10 09 46
formation@ambient-it.net
140 Avenue Jean Lolive 93500 Pantin - France

Updated 07/26/2024

Sign up

Amazon Bedrock training

2 days (14 hours)

Presentation

Learn how to build, deploy and manage your Machine Learning models at scale with our Amazon Bedrock training.

Our course program will introduce you to the features of Amazon Bedrock and its benefits for your business. We'll guide you through initial configuration, permissions and IAM role management, and integration with other AWS services.

We'll teach you how to use the available pre-trained templates, customize these templates to your specific needs, and optimize their performance. You'll also learn how to deploy your models on the Amazon cloud, monitor them continuously and manage model versions. Our program also includes the use of advanced machine learning techniques such as deep neural networks and reinforcement learning.

At the end of this course, you'll be able to take full advantage of Amazon Bedrock to create robust, scalable ML solutions. You'll benefit from optimized workflows thanks to seamless integration with other AWS services.

Objectives

- Understanding the features and benefits of Amazon Bedrock
- Configuring and installing the tools needed to use Amazon Bedrock
- Use and manage pre-trained models for different applications
- Customize and optimize ML models for specific needs
- Efficiently deploy, monitor and manage models on AWS

Target audience

- Data Scientists
- DevOps
- Application developers
- Data Engineers
- AI Engineers

Prerequisites

- Basic knowledge of Python
- Knowledge of Machine Learning
- Know how to use Amazon's cloud service or have taken our AWS training course

Technical requirements

- Have an Amazon account with Bedrock features enabled
- Python installed

AMAZON BEDROCK TRAINING PROGRAM

Introduction to Amazon Bedrock

- Introducing Amazon Bedrock
- Importance and benefits of Amazon Bedrock
- Overview of common use cases
- Understanding the AWS ecosystem
- Comparison with other ML services

Setup and Installation

- Creating and configuring an AWS account
- Installing the necessary tools
- Configuring IAM roles and permissions
- Setting up development environments
- Getting started with the Amazon Bedrock interface

Pre-trained models

- Introduction to available pre-trained models
- Using NLP models
- Using computer vision models
- Using models for time series
- Selecting and managing pre-trained models

Model customization

- Introduction to ML model customization
- Fine-tuning techniques on Amazon Bedrock
- Uploading your own training data
- Optimizing hyperparameters
- Validation and performance assessment

Deployment and model management

- Amazon Bedrock deployment strategies
- Using Amazon SageMaker with Bedrock
- Continuous monitoring of deployed models
- Model version management
- Scaling and resource optimization

Integration with other AWS Services

- Integration with Amazon S3 for data storage
- Use with AWS Lambda for automated triggering
- Work with AWS Glue for ETL (Extract, Transform, Load)
- Monitoring with Amazon CloudWatch
- Security and compliance with AWS KMS and IAM

Advances and Innovations in ML with Amazon Bedrock

- Introduction to advanced algorithms
- Using deep neural networks
- Implementing transfer learning models
- Exploiting generative models
- Understanding and using GANs (Generative Adversarial Networks)
- Implementing hybrid model architectures
- Exploring reinforcement learning techniques
- Using advanced visualization tools
- Monitoring and analyzing ML trends
- Preparing for future ML innovations

Companies concerned

This course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology, or to acquire specific business knowledge or modern methods.

Positioning on entry to training

Positioning at the start of training complies with Qualiopi quality criteria. As soon as registration is confirmed, the learner receives a self-assessment questionnaire which enables us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and personal objectives with regard to the training to come, within the limits imposed by the format selected. This

The questionnaire also enables us to anticipate any internal connection or security problems (intra-company or virtual classroom) that could be problematic for the follow-up and smooth running of the training session.

Teaching methods

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

Organization

The course alternates theoretical input from the trainer, supported by examples, with brainstorming sessions and group work.

Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

Sanction

A certificate will be issued to each trainee who completes the course.