Updated on 27/11/2024

Sign up

Mage AI training

2 days (14 hours)

Presentation

Mage AI is a framework designed to simplify the process of creating machine learning applications. Our Mage AI training course will give you an in-depth understanding of how to simplify and automate your pipelines.

Mage AI lets you create automated data processing pipelines that can run on multiple engines such as AWS, GCP or Azure.

Thanks to its APIs compatible with various languages (Python, SQL), it is the ideal tool for Data Engineers, Data Scientists and developers looking to process large volumes of data in a scalable way.

During this course, you'll learn how to design, **optimize** and automate efficient pipelines. Using a variety of programming languages, you'll discover how to modify your own pipelines.

You will also acquire the skills needed to run and deploy your pipelines in Spark

As with all Mage AI training courses, you will be presented with the latest version: Mage AI 0.9.7

Objectives

- Understand the fundamentals of Mage AI and its place in the data processing ecosystem
- How Mage AI compares to other technologies
- Master the architecture of Mage AI and its various components
- Optimize data processing with hyperparameters

Target audience

- Data Engineers
- Data Scientists
- Big Data developers
- Data architects

Prerequisites

- Knowledge of fundamental concepts in data processing and data engineering
- Experience with a programming language (ideally Python or SQL)
- Understanding of database principles and pipelines

OUR MAGE AI TRAINING PROGRAM

INTRODUCTION TO MAGE AI

- Overview of Mage AI's data processing technologies and positioning
- Comparison with other technologies such as Spark, Flink and Google Cloud Dataflow
- Installing and configuring the Mage AI environment

MAGE AI ARCHITECTURE AND FEATURES

- Understanding Mage AI architecture and key components
- Introduction to the No-Code Interface
- Details of the MageAI modeling environment
- Data pipelines, APIs and integration
- Processing backend and scalability

MAGE AI PROGRAMMING MODEL

- Data flow, modularity, flexibility and basic terminologies
- Simple pipeline creation and automatic optimization
- Analysis of different deployment models :

PIPELINE DEVELOPMENT AND IMPLEMENTATION

- Writing and structuring a pipeline with Mage AI
- API integration in Python and pipeline manipulation
- Managing data sources and sinks: reading and writing data

PIPELINE EXECUTION AND DEPLOYMENT

- Pipeline execution methods: automatic, code-free or via python
- Pipeline deployment :
  - Models for inference
  - Cloud
  - Continuous deployment
- Pipeline monitoring and management

HYPER-PARAMETER OPTIMIZATION

- Using hyper-parameter optimization in MageAI
- Optimized with various algorithms
- Visualize results and automate the optimization process

Companies concerned

This training 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 finalized, 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 for the training to come, within the limits imposed by the selected format. This questionnaire also enables us to anticipate any connection or security difficulties within the company (intra-company or virtual classroom) which 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.