

Updated on 12/17/2024

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## Vertex AI training

2 days (14 hours)

#### Presentation

**Google Vertex AI**, formerly Google AI Platform, is a cloud-based machine learning platform. This platform is designed to develop learning models, train them and deploy them.

This Vertex AI training course will give you more information on the lifecycle of a machine learning model. You'll be able to prepare training data and deploy a model in production.

Your team will be able to use the Google Cloud model for generic ML use cases, and access the Vision API, Language API and Text API.

Vertex AI will enable your company to deploy models faster, with 80% fewer lines of code needed for customized modeling.

Following this course, you'll be able to install and configure Vertex AI and understand its architecture. As with all our training courses, this one will introduce you to the latest resources.

## Objectives

- Understanding the Vertex AI ecosystem
- Deploy models faster
- Use MLOps tools for easy data management

## Target audience

- Data Analyst
- Data Scientist

- Data Engineer
- Developers
- Big Data Architects

## Prerequisites

A Google Cloud account.

## Vertex AI training program

#### Introduction

- What is Vertex AI?
  - Cloud platform
- Introduction to Artificial Intelligence
- Learning models
- Learning data

#### Features

- Labeling service
- Labeling data (image, video, text)
- Training service
  - Hyperparameters
  - Al Vizier
  - Google Cloud GPU
- Prediction service
  - Model deployment
  - Predictions sought

#### Vertex Al

- Vertex AI Model Monitoring
- Vertex Explainable Al
  - Features
- Vertex AI Pipelines
  - Machine learning pipelines
  - MLOps
  - ML Metadata
- Vertex AI Feature Store
  - Storage
- Vertex AI Model Registry
  - Developed model
  - Library

- Command line (CLI)
- Vertex AI Workbench
  - Deep learning package
- API Rest
- Learning VM Images
  - CPU
  - GPU

#### Additional services

- Google Cloud services
  - Dataprep
  - Google AutoML

## Further information

Introduction to Deep Learning

Pytorch training

Tensorflow training

2 days (14 hours)

# 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 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.