

Updated 07/27/2023

Sign up

Graph Analytics and Machine Learning training with TigerGraph

3 days (21 hours)

Presentation

Harness the full power of graph databases. TigerGraph is a benchmark in the graph database sector. It is recognized as the [world's fastest](#) and [most scalable](#) graph database. The use cases for graph analytics coupled with machine learning are numerous:

- Improve your product with better analysis of your user data
- Improve your marketing by recommending your customers more effectively
- Protect yourself from fraud with a fraud detection algorithm
- Optimize your R&D investments with a better understanding of your data

Artificial intelligence applied to graphs can be used in many sectors, including finance, healthcare and advertising. Our Graph Analytics and Machine Learning with TigerGraph training course will teach you about graph analytics, machine learning applied to graphs and how to use TigerGraph. During this TigerGraph training course, you'll discover the new features of the latest version of the program, [TigerGraph 3.1](#).

Objectives

- Managing a graph database with TigerGraph
- Understand the benefits of graph analysis and its application
- Use graph analytics and machine learning to solve real-life problems
- Master GraphStudio

Target audience

- Business analysts
- Data analysts
- Data scientists
- Data engineers

Prerequisites

- Knowledge of SQL and database management
- Knowledge of Big Data

Program of our Graph Analytics and Machine Learning training with TigerGraph

Introduction to Graph Analytics

- What is a graph and why use it?
- Introduction to different types of graphs
- The limits of graphs
- The impact of 5V on graphs

Graph Analytics techniques

- Overview of different techniques
- Path analytics
- Introducing Dijkstra's algorithm
- Apply Dijkstra's algorithm
- Graph connection analysis
- Graph modularity
- Centrality analytics

Introducing TigerGraph

- What is a graph database and why use it?
- What is TigerGraph?
- The benefits of the tool
- Installation and configuration

GraphStudio

- What is GraphStudio?
- Interface presentation
- Building your diagram
- Load this data

- Exploring graphs
- Creating graph patterns
- Migrating to a relational database

GSQL with TigerGraph

- Introduction to structured graph and GSQL
- Create a graph
- Job creation
- Job launch
- Deleting elements
- Overview of GSQL queries

Machine learning with TigerGraph

- Comparison of different machine learning techniques and their uses
- Unsupervised learning with graph algorithms
- GNN (neural networks on graphs)
- GCN (convolutional networks on graphs)
- GraphSAGE

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.

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.

[Training Program Web page](#) - Appendix 1 - Training sheet

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