

Deep Learning with TensorFlow 2.0

Description

TensorFlow is a complete open-source platform for machine learning. The course leverages the Keras API to write clean, fast code. You apply best practices from day one. You avoid common pitfalls in AI projects. You design, train, and evaluate robust models. You set up a reliable, reproducible environment. You validate your choices with meaningful metrics. You make better decisions, faster.

Skills and approach

This training focuses on TensorFlow 2.0 and the Keras API. The goal is autonomy on real-world cases. You leave with a clear, reusable framework. You strengthen your Deep Learning foundations. By the end of the course, you can move from idea to model. You structure your experiments rigorously. You accelerate iteration and safeguard quality. The TensorFlow 2.0 course prepares you to deliver under real production conditions.

Course Content

Module 1: Introduction to neural networks Module 2: Setting up the working environment Module 3: Minimal example - your first machine learning algorithm Module 4: TensorFlow - An introduction Module 5: Going deeper: Introduction to deep neural networks Module 6: Backpropagation. A peek into the Mathematics of Optimization Module 7: Overfitting Module 8: Initialization Module 9: Gradient descent and learning rates Module 10: Preprocessing

Lab / Exercises

- This course includes hands-on exercises designed to reinforce your knowledge and apply your skills in real-world professional scenarios.

Documentation

- Digital courseware included

Participant profiles

- Aspiring data scientists
- Python developers focused on AI
- Software engineers or entry-level MLOps
- Data analysts in career transition
- Computer science students

Prerequisites

- Some basic Python programming skills

Objectives

- Gain a Strong Understanding of TensorFlow - Google's Cutting-Edge Deep Learning Framework
- Build Deep Learning Algorithms from Scratch in Python Using NumPy and TensorFlow
- Set Yourself Apart with Hands-on Deep and Machine Learning Experience
- Grasp the Mathematics Behind Deep Learning Algorithms
- Understand Backpropagation, Stochastic Gradient Descent, Batching, Momentum, and Learning Rate

Schedules

- Know the Ins and Outs of Underfitting, Overfitting, Training, Validation, Testing, Early Stopping, and Initialization
- Competently Carry Out Pre-Processing, Standardization, Normalization, and One-Hot Encoding

Description

Deep Learning with TensorFlow 2.0 Training

Niveau

Fondamental

Classroom Registration Price (CHF)

1800

Virtual Classroom Registration Price (CHF)

1700

Duration (in Days)

2

Reference

TFL-01