Deep Learning with TensorFlow 2.0

Description

TensorFlow is an end-to-end open source platform for machine learning. TensorFlow is a rich system for managing all aspects of a machine learning system; however, this class focuses on using a particular TensorFlow API to develop and train machine learning models.

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

- The MNIST example
- Business cases

Documentation

- Digital courseware included

Participant profiles

- Aspiring data scientists
- People interested in Machine Learning, Deep Learning, Business, and Artificial Intelligence
- Anyone who wants to learn how to code and build machine and deep learning algorithms from scratch

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

Niveau
Fondamental
Classroom Registration Price (CHF)
1800
Virtual Classroom Registration Price (CHF)
1700
Duration (in Days)

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Reference
TFL-01