

CERTIFICATE OF ATTENDANCE



This acknowledges that

Gaëtan Fichet de Clairfontaine

attended

Introduction to Deep Learning

A blue cursive signature of Claudia Blaas.

Dr. Claudia Blaas-Schenner
Head of Learning Center
AI Factory Austria AI:AT
Vienna, 4 November 2025

Course: <https://events.asc.ac.at/e/DL-2025-11>
Level: Basic
Duration: 10 hours (breaks excluded)
Date: 3–4 November 2025

Certificate of attendance for Gaëtan Fichet de Clairfontaine

Introduction to Deep Learning

Deep Learning (DL) has enjoyed a surge in popularity during the last decade. This is mainly owed to the fact that DL is computationally quite expensive and needs vast amounts of data to train useful models. Both, computational resources and large datasets have become more readily available in recent years, leading to breakthroughs in DL applications.

The course covered the basic principles of fully connected neural networks (ANNs), convolutional neural networks (CNNs) for computer vision, recurrent neural networks (RNNs) for text or speech recognition, transfer learning to leverage pretrained models, and touched on large language models (LLMs) which have become all the rage in the past few years.

Participants gained hands-on experience using TensorFlow to build and train models on high-end GPUs on an HPC cluster.

Topics covered:

- Concepts of a neural network
- Introduction to TensorFlow
- Data preparation, metrics and evaluation
- Hyperparameters
- Established architectures for computer vision
- CNNs
- Transfer learning
- RNNs, LSTMs & LLMs
- Multi-GPU
- Hand-on labs

Course content level:

- Basic

Course format:

- Online lectures, demos, and hands-on labs of **10 hours** (breaks excluded)
- Equivalent to **0.5 ECTS** credits

Lectures taught by:

- Simeon Harrison (AI Factory Austria AI:AT)

Hands-on labs:

- Conducted on the A100 and A40 partitions of VSC-5 supercomputer

Organized by:

- AI Factory Austria AI:AT
- Austrian Scientific Computing ASC

Course description:

- <https://events.asc.ac.at/e/DL-2025-11>