



**NVIDIA**  
and  
**Université Paris Saclay**  
CentraleSupélec - MICS & GPU Research Center  
ENS Paris-Saclay  
Moulon Mésocentre

organize the

**Lectures and Training on  
Fundamentals of Deep Learning (Python and GPU)**

This lectures and training teach you the fundamentals of deep learning for running on GPU. You will learn on how deep learning works through hands-on exercises in computer vision and natural language processing. You'll train deep learning models from scratch, learning tools and tricks to achieve highly accurate results. You'll also learn to leverage freely available, state-of-the-art pre-trained models to save time and get your deep learning application up and running quickly.

<b>Date:</b>	Tuesday, 15th December 2020
<b>Duration:</b>	8 hours (from 9:00 to 17:00)
<b>Location:</b>	Online format
<b>Material:</b>	During the workshop, each participant will have dedicated access to a fully configured, GPU-accelerated workstation in the cloud. Each participant should have its own notebook (PC) with an internet connection and capable of running the latest version of Chrome or Firefox.
<b>Assessment type:</b>	Code-based
<b>Prerequisites:</b>	An understanding of fundamental programming concepts in Python such as functions, loops, dictionaries, and arrays.

**Language:** English

**Tools, libraries, and frameworks:** Tensorflow, Keras, Pandas, NumPy

### **Learning Objectives**

By participating in this workshop, you will:

- Learn the fundamental techniques and tools required to train a deep learning model
- Gain experience with common deep learning data types and model architectures
- Enhance datasets through data augmentation to improve model accuracy
- Leverage transfer learning between models to achieve efficient results with less data and computation
- Build confidence to take on your own project with a modern deep learning framework

### **Instructors :**

Instructors will be instructors from Nvidia.

### **Registrations :**

To ensure suitable online interaction between the instructors and the participants, the number of participants for this session is limited. Be sure to be present online all day long before registering. FIFO algorithm will be applied for registrations.

People should register by sending an email to Frédéric Magoulès (Univ. Paris Saclay, CentraleSupélec).

### **Contacts :**

Frédéric Magoulès (Univ. Paris Saclay, CentraleSupélec).