

Through instructor-led demonstrations and self-paced hands-on exercises, ICHEC provides training on the latest techniques for applying deep learning techniques across a variety of application domains. Participants will explore widely-used deep learning frameworks on GPU-accelerated platforms and network with industry leaders

Deep Learning Training: Level 1






A 5-day training course to introduce fundamental concepts in deep learning, along with an overview of prominent and widely-used deep learning frameworks. Training will include demonstration of use-cases along with hands-on exercises using the frameworks on GPU-accelerated platforms. Training will be augmented with guest lectures and networking sessions involving industry leaders in deep learning and AI.

Course Structure

- Programming basics for deep learning (Optional)
- Deep learning concepts and related machine learning fundamentals
- Every session contains hands on practical experience
- Introduction to deep learning frameworks : Microsoft Cognitive Toolkit (CNTK) / Google Cloud AI and TensorFlow / PyTorch / Caffe2 / MATLAB
- Guest lectures and demonstrations : Microsoft, NVIDIA, MathWorks, Intel, Google

Learning Outcomes

- Understanding of key components in machine learning and deep learning
- Ability to identify use-cases for machine learning and deep learning
- Awareness of features and usability of prominent deep learning frameworks
- Ability to use the deep learning frameworks on a cloud platform

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
8:30-10:30		Kick off	DL concepts	Google Cloud AI	PyTorch	MS CNTK
10:30-11:00	Break					
11:00-11:30		DL concepts	DL concepts	Matlab	PyTorch	MS CNTK
12:30-13:30	Lunch					
13:30 - 15:30	Introduction (optional)	DL concepts	DL concepts	Matlab	Caffe2	 Microsoft
15:30 - 16:00	Break					
16:00 - 17:30		DL concepts	Google Cloud AI		Caffe2	Wrap up
17:30 - 18:00	Break					
18:00 - 19:30						

Deep Learning Training: Level 2

An 8-week (4 hours per week) advanced training course to work on advanced concepts and use-cases in deep learning. Training will be achieved through offline study of material for the advanced concepts and solving basic exercises, as a lead up to each of the 4-hour session over 8 weeks. Training sessions will include personal discussions of the advanced concepts and hands-on sessions for advanced use-cases.

Course Structure

•Advanced concepts and exercises

- Image classification, object detection, image segmentation
- Linear classification
- Signal processing
- Natural language processing
- Time series analysis
- Fraud and outlier detection

•Project

- Self-designed project implemented using one of the deep learning frameworks
- Selection and implementation guided by ICHEC instructors

Learning Outcomes

- Application of deep learning techniques to practical examples and use-cases
- Ability to work with large and real-world data sets for deep neural networks
- Ability to identify, develop and implement a deep learning solution for a practical problem

Pre-requisites for participants

- 1 year of programming experience with Linux and database knowledge
- Basic algebra
- Personal laptop computer

Date and Venue

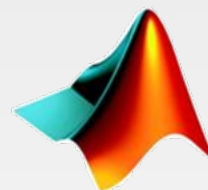
- Deep Learning Training Level 1:** 22nd April 2018 to 27th April 2018 : Cost €1,750 (includes 100 hours GPU time and storage on the Microsoft Azure platform)
- Deep Learning Training Level 2:** 23rd May 2018 onwards: Cost €1,600 (includes 150 hours GPU time and storage on the Microsoft Azure platform)
- Venue:** Chartered Accountants House, 47 -49 Pearse Street, Dublin 2

Contact

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NVIDIA®



MATLAB



Google Cloud Platform

