

Neural Networks & Deep Learning Seminar

From July 2nd to July 20th, 2018

Overview

Neural networks are an exciting branch of artificial intelligence. They cover a large part of current industrial innovation that provides more efficient algorithms to deal with problems in computer vision, speech recognition, language processing. Students will learn basics of neural networks and how to create a computer vision system (optical Character recognition OCR or Face recognition)

Courses structure

- Python for scientists (1.5 ECTS)
- Image processing (1 ECTS)
- Neural network & Deep learning (2 ECTS)
- French Language & Culture (1.5 ECTS)

Keywords

- Deep learning, Image processing, Python



Practical information

- **Start date** : July 2nd, 2018 – **End date** : July 20th, 2018
- **Duration** : 72 hours (3 weeks)
- **Total ECTS** : 6
- **Language** : English
- **Venue** : EPITA (Le Kremlin-Bicêtre – Paris)
- **Application deadline** : May 15th, 2018

It is highly recommended to arrive in Paris on Sunday (July 1st)

Contact : summer@epita.fr

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Courses

Course 1 : Python for scientists

Objective: Being at easy with most common Python libraries for science

Hours: 18h - ECTS (credits) : 1,5

Description :

- Python language
- Numpy & Pandas libraries for data manipulation
- Plotting with Python

Course 2 : Image processing

Objective: Extract information from an image

Hours: 12h - ECTS (credits) : 1

Description :

- What is an image
- Image transformations
- Applications
- Project

Course 3 : Virtual Reality Workshop

Objective: Get basics on neural networks

Hours: 24h - ECTS (credits) : 2

Description :

- Theory
- Python + Keras to run neural networks on GPU
- Applications to image processing
- Project

Course 4 : Initiation to French language

Objective: Prepare students to able to communicate in French given a simple daily situation

Hours: 18h - ECTS (credits) : 1,5

Description :

- To learn French pronunciation, to count, to introduce oneself
- To get around the city : read a map, take public transportation...
- To do shopping (ask for a price, etc.), to buy food, to order in a restaurant...



Remarks

- Bringing a laptop is not mandatory



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Prerequisites & level

Applicants must have intermediate programming skills and completed at least two years of higher education in IT, computer science or mathematics.



Program Fee

- Application Fee : 60 €
 - Fees : **2300 €** including
 - tuition and documentation,
 - accommodation, & lunches on week days,
 - survival French classes,
 - public transport pass.
 - organization of several events (welcome, certificate ceremony),
 - weekly cultural visits / activities (Versailles Castle, Louvre, Cité des sciences...),
 - computer accounts at the school (WIFI access),
 - program certificate.
- Optional: airport transfer

Participants who wish to cancel must do so in writing by email. Their tuition fees will partially be refunded as follows:

- Cancellation after May 15th, 2018 : 50% refund
- Cancellation after June 2nd, 2018 : no refund possible

Early Bird (registration before April 15th, 2018) and partner university students can receive a discount off the program price.

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English requirements

IELTS 5,5 - TOEFL IBT 65 - CECRL B2 - TOEIC 600.

Contact - How to apply

For any question you can contact us at summer@epita.fr

You can find information about admissions (requirements, process...) on the net
<http://www.epita.fr/international/admission-requirements.aspx>

