



DEEP LEARNING

METHODS AND APPLICATIONS

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DESCRIPTION

Introduction to Deep Learning paradigm and architectures.
Implementation issues.

Outline

- 1 Introductory course
- 2 Artificial neural networks: Perceptrons and Multi Layer Perceptrons
- 3 Convolutional Neural Networks
- 4 Recurrent Neural Networks
- 5 Autoencoders
- 6 Transfer Learning
- 7 Matching Networks
- 8 Generative models
- 9 Deep Reinforcement Learning

DESCRIPTION

Schedule

- ▶ Mondays 8:15-9:45: synchronous lecture (Zoom, slides)
- ▶ Fridays 8:15-9:45: practical implementation (by your own, with possible interactions by chat, zoom..)

Implementation issues : Python + dedicated libraries + Google Colab (Jupyter Notebooks).

Materials: lecture slides, supplementary slides + videos, Jupyter Notebooks.

Evaluation and assignments

- ▶ Weekly programming assignments which should be done on an individual basis (not evaluated).
- ▶ Final exam: challenge (gathering knowledge collected during the programming assignments).

See you on Zoom, on Monday March 15th, 8:15