

High Dimensional Statistics and Deep Learning



ECTS
3 crédits



Hourly volume
60h

Introducing

Objectives

At the end of this module, the student will have understood and be able to explain (main concepts):

- How to use deep learning methods for classification in high dimension
- Classification of media or images
- Estimation of the prediction error
- Dimension reduction by projection onto orthonormal bases
- Anomaly detection
- Application of deep learning methods on real data set

At the end of this module, the student should be able to:

- Fit a deep neural network for media or image classification and regression
- Apply anomaly detection algorithms
- Implement deep learning methods in high dimension on real data sets with Python libraries.

Practical info

Location(s)

 Toulouse

Necessary prerequisites

Statistical modelling
Software for statistics