



Methods of machine learning

Module

Objectives

The goal of this training module is to provide an understanding and mastering the main methods of machine learning used to analyse health data.

Knowledge to be acquired

- Know the main methods of machine learning, from their fundamental concepts to their contextualised use to analyse health data.

Skills to be acquired

- Being able to perform and interpret an analysis using machine learning methods.

Program

- General theoretical framework for machine learning;
- k-means;
- Support vector machines;
- Tree-based methods, bagging, random forests, boosting;
- Neural networks.

Prerequisites

- Knowledge in probabilities, in descriptive and inferential statistics, in mathematic;
- Basic knowledge of programming (Python and/or R).

Coordinators* & Instructors

Louis Visonneau*, Quentin Marcou, Imad El Badisy.

Practical informations

Course organisation

12 hours of lecture and 6 hours of practical exercises.

Module organisation

Live and online.

Module fees

- Individually: 300 €;
- Institutionally: 900 €.

