neos AI

Course 2

Advanced Machine Learning Practices (Supervised)

PRICE: $2,950 / participant **DURATION:** 3 days

FOR: Developers / BI Analysts / Consultants / Statisticians / Marketing Specialists / IT Professionals

DESCRIPTION

Are you a developer, analyst, statistician, marketing specialist or IT professional? Do you have data and you want to transform it into value-added for your business? Do you need a better understanding of Machine Learning practice? Do you want to master the use of regression and classification models?

This training is for you!

Designed by Data Science and Artificial Intelligence professionals, this 3-day training is an intensive and immersive course that addresses the application of supervised learning approaches, using the most advanced tools and programming languages used in the field including R and Python.

Through a series of practical case studies, you will acquire applied experience in the main concepts of machine learning, including prediction, classification, regression and its variants.

You will be guided, step by step, into the world of machine learning. Each module of the course is practice-oriented, with labs where participants will have the chance to develop new skills: Ask the right questions, manipulate data, apply predictive models and create visualizations to communicate the results.

LEARNING OBJECTIVE

With this course, the participants will be able to:

- Identify the key elements for the implementation of a supervised approach
- Describe and execute supervised machine learning algorithms
- Use libraries (R/Python) for Machine Learning
- Reuse code snippets in their real-world projects

PREREQUISITES

The participant must have:

- Basic knowledge of programming
- Basic knowledge of mathematics/statistics
- Basic knowledge of R/Python programming would be a plus

PRIOR TO STARTING THE COURSE

A participant must have

- A laptop with a decent configuration: 8Go of RAM, 500Go of disk space, Intel I3 or higher is a minimum requirement
- Installed software required for training (an installation manual will be provided prior to training)

COURSE OUTLINE

- Introduction to supervised approaches
    - Definitions, concepts, and challenges
    - Processes
- Identification of the learning problem
- Presentation of R/Python modules for supervised learning
- Data preparation:
    - Initial exploration
    - Preprocessing and transformation
    - Variable selection
- Regression algorithm and its variants
    - Apply regression models to real-life cases
    - Evaluation and validation measures
    - Result interpretation
- Classification algorithms
    - Apply prediction models (Naïve Bayes, decision trees, KNN, etc.) to real-world cases
    - Evaluation and validation measures
    - Result interpretation
- Model comparison and interpretation
- Application project: a case study for algorithm application