

# Machine Learning Data for AI

Duration 4 days

## COURSE DESCRIPTION

This course introduces you to Machine Learning and the content of the professional Machine Learning Data for AI. In this course you will realize the importance of good, quality data. You will learn common techniques to retrieve your data, clean it, apply feature engineering, and have it ready for preliminary analysis and hypothesis testing. This course will also help you understand the basics of artificial intelligence. Then, you will understand machine learning and deep learning and the different algorithms used to build AI models.

## COURSE OBJECTIVES

- Acquire knowledges of implementing Machine Learning Data.
- Know how to best use machine learning to solve business issues and analyze problems using a machine learning perspective.

## COURSE OUTLINE

- 1) **All about Data**
  - Data Properties
  - Quantitative vs Quantitative Data
  - Data Types
- 2) **Review Data Science & Data Analytic**
  - Data Science Process
  - Data Analytic
- 3) **Introduction to Machine Learning**
  - What is ML
  - ML Process
  - Data in ML
  - ML States
  - ML Categories
- 4) **Probability & Statistic**
  - Probability
    - Probability Concept
    - Combination
    - Permutation
- 5) **Statistic**
  - Percentile, Sum
  - Mean, Median, Mode
  - Standard Deviation
- 6) **Inferential Statistic**
  - Sampling data
- 7) **Hypothesis Testing**
- 8) **Training Data**
  - Supervised Learning
  - Unsupervised Learning

- Reinforcement Learning
- 9) Make a Decision**
  - Decision Tree
- 10) Data Processing**
  - Cleaning
  - Normalization
  - Transformation
- 11) Principle Component Analysis**
  - PCA Concepts
  - PCA Steps

#### PREREQUISITES

- Basic knowledge of computer programming and statistics.
- Anyone who is interested to refine and deepen your understanding of machine learning.

#### WHO SHOULD ATTEND

Python Programming / Data Analytic concept