

Machine Learning with Python

Duration: 3 Days

Description

"Machine Learning and Applications Training with Python" is a training program that teaches participants machine learning concepts and how to apply these concepts on the Python programming language.

This training targets software developers, data analysts and engineers who want to pursue a career in data science and artificial intelligence. It aims to provide participants with the skills to develop machine learning models using the Python programming language. Training usually includes theoretical lessons, practical applications, projects and case studies. At the end of the training, participants will have the ability to develop machine learning applications in Python language.

Outline

MACHINE LEARNING FUNDAMENTALS

What is Machine Learning?

Real Life Examples

Basic Concepts and Terminology

Types of Learning

- Supervised Learning
- Unsupervised Learning
- Reinforcement

Data Pre-Processing

- Data Cleansing
- Data Transformation
- Data Reduction

Feature Extraction

Machine Learning Models Success Evaluation Methods

- Confusion Matrix
- R2 Score

- F1 Score
- AUC-ROC Curve
- Mean Absolute Error (MAE)
- Mean Squared Error (MSE)

Tools for Performing Machine Learning with Python

- Scikit-Learn Module and Machine Learning

Machine Learning Algorithms/Models and Application Development

- Regression Models (Theory, Model, Estimation)
- Classification Models (Theory, Model, Prediction)
- Clustering Models (Theory, Model, Prediction)
- Boosting Models (Theory, Model, Prediction)

Prerequisites

A basic knowledge of Python programming.