Duration:3 Days

Introduction to Machine Learning

* What is Machine Learning?
* Applications of Machine Learning
* Why Machine Learning is the Future
* Installing R and R Studio (MAC & Windows)
* Installing Python and Anaconda (MAC & Windows)

Data Preprocessing

* Data Preprocessing
* Importing the Libraries
* Importing the Dataset
* For Python learners, summary of Object-oriented programming: classes & objects
* Missing Data
* Categorical Data
* Splitting the Dataset into the Training set and Test set
* Feature Scaling

Regression

* Simple Linear Regression
* Dataset + Business Problem Description
* Simple Linear Regression in Python
* Simple Linear Regression in R
* Multiple Linear Regression
* Multiple Linear Regression in Python
* Multiple Linear Regression in R
* Polynomial Regression
* Polynomial Regression in Python
* Polynomial Regression in R
* Support Vector Regression (SVR)
* SVR in Python
* SVR in R
* Decision Tree Regression in Python
* Decision Tree Regression in R
* Random Forest Regression in Python
* Random Forest Regression in R

Classification

* Logistic Regression in Python and R
* K-Nearest Neighbors (K-NN)
* Support Vector Machine (SVM)
* Kernel SVM
* Naive Bayes
* Decision Tree Classification
* Random Forest Classification
* Confusion Matrix
* CAP Curve

Clustering

* K-Means Clustering in Python and R
* Hierarchical Clustering in Python and R

Association Rule Learning

* Association Rule Learning in Python and R
* Apriori

Reinforcement Learning

* Upper Confidence Bound (UCB)
* Thompson Sampling

Natural Language Processing

* Natural Language Processing in R
* Natural Language Processing in Python

Deep Learning

* Artificial Neural Networks in Python and R
* Convolutional Neural Networks in Python and R