Data Science & Machine Learning

What is Data Science?

Data science is the study of where information comes from, what it represents and how it can be turned into a valuable resource in the creation of business and IT strategies. In other terms, Data science is a multi-disciplinary field that uses scientific methods, processes, algorithms and systems to extract knowledge and insights from structured and unstructured data.

As Data become more and more important Data Science becomes a valuable tool.

What is Machine Learning?

Machine learning is an artificial intelligence (AI) discipline geared toward the technological development of human knowledge. Machine learning allows computers to handle new situations via analysis, self-training, observation and experience.

Machine learning facilitates the continuous advancement of computing through exposure to new scenarios, testing and adaptation, while employing pattern and trend detection for improved decisions in subsequent (though not identical) situations.

Highlights of this course

This Course is the introduction to the world of Artificial Intelligence. It is designed to impart an in-depth knowledge of the various libraries and packages required to perform data analysis, data visualization, web scrapping, machine learning and natural language processing using Python. This course is packed with real-life projects, assignments, demos and case studies to give a hands-on and practical experience to the students.

** This Course includes basic python introduction.**

Following are the contents of this course:

Basic Python:

- Set up environment
- Basic concepts of python
- Conditional statements and loops
- Creating Functions
- Exception Handling
- Basic libraries and other required tools
- Installing Jupyter and Interface introduction

Introduction to Data Science and Analytics

- Concept understanding
- Python as a tool
- The need for Data Science
- Data Analytics as a business tool

Statistics

- Introduction to statistics
- Statistical and non-statistical analysis
- Central Tendencies, Percentiles and Dispersion
- Graphs
- Correlation and Chi-Square Test
- Drawing Inference

Major Libraries

- Introduction to Pandas
- Working with Pandas variables
- Pandas for Data Science
- Introduction to Numpy
- Working with Numpy as a tool
- Other libraries and working

Other Tools

- Data Loading
- Data Wrangling
- Plotting and Visualization
- Data Aggregation
- Time Series Function

Machine Learning

Machine Learning Landscape

- Introduction to Machine Learning
- Types of Machine Learning
- Need and Demand of Machine Learning
- Challenges to Machine Learning

Hands on Machine Learning

- Getting to know the various models
- The practical usage
- Performance measures
- Classification
    - Binary Classifier
    - Multi-class Classifier
- Regression
    - Linear Regression
    - Logistic Regression
    - Polynomial Regression
- Learning Curves and Gradient Descent
- Support Vector Machines
- Decision Trees
- Random Forests
- Other Models as Tools

Artificial Neural Networks

Real Time Data Sets for Practice

Real Time Projects with Complete Support

Students will work on the Technol proprietary GUI tool for better understanding of the concepts.

24x7 query solving support through WhatsApp groups

Internship Opportunity