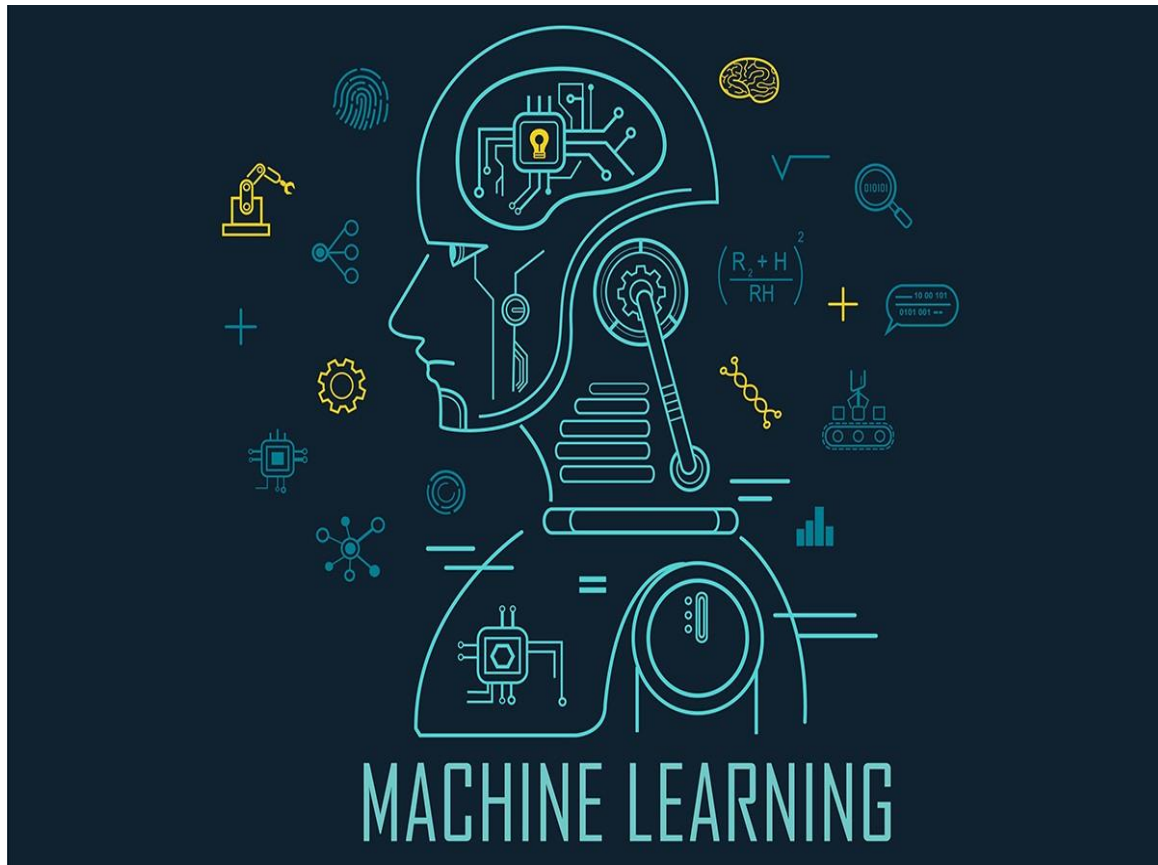




Training | Consulting | Development | Outsourcing



Machine Learning

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Machine Learning with Python Training

Course Overview:

Machine learning is the science of getting computers to act without being explicitly programmed. In the past decade, machine learning has given us self-driving cars, practical speech recognition, effective web search, and a vastly improved understanding of the human genome. Machine learning is so pervasive today that you probably use it dozens of times a day without knowing it. Many researchers also think it is the best way to make progress towards human-level AI. In this class, you will learn about the most effective machine learning techniques, and gain practice implementing them and getting them to work for yourself. More importantly, you'll learn about not only the theoretical underpinnings of learning, but also gain the practical know-how needed to quickly and powerfully apply these techniques to new problems.

Course Outline:

Python for Machine Learning

- Programming Basics
- Python Data Types
- Structures and conditional statements
- Python core packages
- Introduction to Jupyter Notebook
- Introduction to Numpy and Pandas
- Data filtering and selecting
- Find duplicates and treating missing values
- Concatenate and transform data

Setting up and installations

- Installing python
- Setting up Python environment for development
- Installation of Jupyter Notebook
- How to access our course material
- Write your first program in python

Python object and data structures operations

- Introduction to Python objects
- Number objects and operations
- Variable assignment and keywords
- String objects and operations
- Print formatting with strings

Python statements

- Introduction to Python statements
- If, else-if and else statements
- Comparison operators
- Chained comparison operators
- What are loops?
- For loops
- While loops

File and exception handling

- Process files using python
- Read/write and append file object
- File functions
- File pointer and operations
- Introduction to error handling
- Try, except and finally

Basic Statistics for Machine Learning

- Basic Statistics and Exploratory Analysis
- Descriptive summary statistics with Numpy
- Summarize continuous and categorical data
- Outlier analysis

Introduction to Machine Learning

- Overview of Supervised and Unsupervised Machine Learning
- Linear Regression
- Clustering with K-means
- Naive Bayes Classification
- Introduction to Neural Networks

Data Processing for Machine Learning

- Advanced Data Mugging

- Outlier Analysis
- Treating for missing values
- Normalization vs Standardization of data

Machine Learning Algorithms

- Supervised Machine Learning algorithms
- K-Nearest Neighbors (KNN) concept and application
- Naive Bayes concept and application
- Logistic Regression concept and application
- Classification Trees concept and application
- Unsupervised Machine Learning algorithms
- Clustering with K-means concept and application
- Hierarchical Clustering concept and application

Building and Training Machine Learning models

- Setting up the project with ML workflow.
- Data Preprocessing and statistical exploration
- Building , Training and evaluation of Machine Learning Model


Prerequisites:

- Familiarity with Python programming is also beneficial. You should understand these fundamental courses including Python for Data Science, Math Refresher, and Statistics Essential for Data Science, before getting into the Machine Learning course.

Who Can attend:

- Developers aspiring to be data scientists or machine learning engineers
- Analytics managers who are leading a team of analysts
- Business analysts who want to understand data science techniques
- Information architects who want to gain expertise in machine learning algorithms
- Analytics professionals who want to work in machine learning or artificial intelligence
- Graduates looking to build a career in data science and machine learning

- Experienced professionals who would like to harness machine learning in their fields to get more insights

 **Number of Hours: 40hrs**

 **Certification: None**

 **Key Features:**

- One to One Training
- Online Training
- Fastrack & Normal Track
- Resume Modification
- Mock Interviews
- Video Tutorials
- Materials
- Real Time Projects
- Virtual Live Experience
- Preparing for Certification

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