

# MACHINE LEARNING



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## MACHINE LEARNING TRAINING IN AHMEDABAD



Machine Learning is most popular and highly asked qualification in IT Industry right now. In today's time most of IT Product is driven by Machine Learning (or Artificial Intelligence). To simplify the concept of machine Learning people use many terms like **Self driving Car**, Face recognition, **Fingerprint identification**, etc. We at Logiccrays, help you to understand the core concept of ML/AI with **hands-on experience**.

This course is beginner friendly and will give you a clear picture of the Machine Learning world. During the course students will design and develop interesting live-projects like Predicting the House Price, Temperature Prediction of a Day, Facial Recognition, Animal recognition, etc. After completing this course you will be able to design high end Machine Learning Model.

## WHAT IS MACHINE LEARNING AND AI

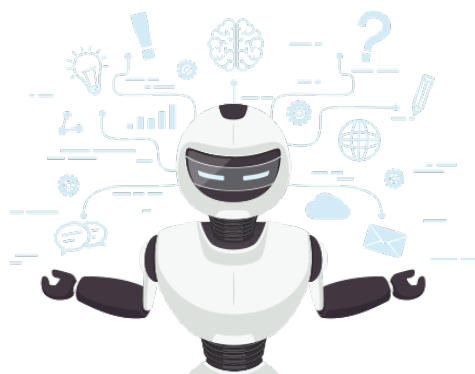
Right now in industry people uses many terms like Machine Learning, Artificial Intelligence, deep Learning, Data Discovery, Data Science, Data Analytics very interchangeably but they all are very similar to each other. In other way we can say that all the fields are stitched together and uses similar techniques.

In one sentence, **machine learning is way of creating a computer program that improves with experiments**. Generally ML involves creating models (models means program logic that can not be written by humans itself). For example think about writing program logic for Face Recognition, how would you write with your programming knowledge it is quite difficult, isn't it? So, to handle that kind of task you will use machine Learning technique.



Machine Learning is active field of research and have vast promising in the present time and near future. All the **BIG TECH Giants** are using machine learning in their hard core products. Think about Amazon, Google, Flipkart, Dropbox, Zomato, Facebook, Spotify, etc. all these company are using ML in their product development.

## WHY YOU NEED TO LEARN MACHINE LEARNING?



Today, machine learning have touched almost all the sectors or industry like Finance, Biotech, Engineering, Aerospace, Database, Signal Processing, Information Technology. Because of that openings for ML engineers is more in almost every sectors.

### Other advantages of taking Machine Learning course:

- > Better career opportunities and growth
- > Better salaries
- > Lack of machine learning skill in Software companies
- > After getting knowledge of machine learning you can also take up roles of Data Analytics, Data Science.

## GETTING STARTED WITH PYTHON PROGRAMMING

- Overview
- Introductory Remarks about Python
- A Brief History of Python
- How python is differ from other languages
- Python Versions
- Installing Python and Environment Setup

## VARIABLES, KEYWORDS ,DATA TYPES AND OPERATORS

- Variables
- Memory mapping of variables
- Keywords in Python
- Comments in pytho
- Operators
- Basics I/O and Type casting
- Getting user input
- All datatype in python

## NUMBERS AND STRINGS

- Introduction to Python 'Number' & 'string' data types
- Properties of a string
- String built-in functions
- Programming with strings
- String formatting



## LISTS AND TUPLES, DICTIONARY AND SETS

- Introduction to Python 'list' data type
- Properties of a list
- List built-in functions
- Programming with lists
- List comprehension

- Introduction to Python 'tuple' data type
- Tuples as Read only lists
- Introduction to Python 'dictionary' data type
- Creating a dictionary
- Dictionary built-in functions

## DECISION MAKING & LOOPS

- Introduction of Decision Making
- Control Flow and Syntax
- The if Statement
- The if..else Statement
- The if...elif...else Statement

- Nested if...else Statement
- The while Loop
- break and continue Statement
- The for Loop
- Pass statement

## USER DEFINED FUNCTIONS, MODULES AND PACKAGES

- Introduction of functions
- Function definition and return
- Function call and reuse
- Function parameters

- Built in functions
- Modules
- Importing module
- Packages

## EXCEPTION HANDLING IN PYTHON

- Understanding exception
- Run Time Errors
- Handling I/O Exceptions
- try, except, else and finally statement
- raising exceptions with: raise, assert

## FILE HANDLING IN PYTHON

- Working with files
- File objects and Modes of file operations
- Reading, writing and use of 'with' keyword
- read(), readline(), readlines(), seek(), tell() methods

## OBJECT ORIENTED PROGRAMMING WITH PYTHON

- OOPs concepts: Classes and objects
- Making of a class and module namespace
- Deep understanding of self and init ()
- Inheritance and Overriding
- Overloading functions
- Operator overloading
- Encapsulation: Hiding attributes

## PYTHON FRAMEWORK FOR MACHINE LEARNING

- numpy
- pandas
- scipy
- scikit-learn
- Tensorflow

## CORE MACHINE LEARNING CONCEPTS

- What is Machine Learning
- Types of Data used in Machine Learning
- Application of Machine Learning
- Supervised Vs Unsupervised
- Workflow to train machine learning model
- Training and testing machine learning model
- Validation of machine learning model

## SUPERVISED LEARNING

- Linear regression
- Linear classification
- Logistic regression
- KNN
- Bayes Classifier
- Support Vector Machine (SVM)
- Decision tree
- Ensemble Methods
- Boosting and Ada Boosting

## UNSUPERVISED LEARNING

- Principal Component Analysis (PCA)
- Clustering
- K-means algorithm
- DBSCAN Clustering algorithm
- Gaussian Mixture Model

## REINFORCEMENT LEARNING

- Markov Decision Process
- Q-Learning

## DEEP NEURAL NETWORK

- Perceptron algorithm
- Neural network
- Deep Neural Network

## OTHER COURSES WE OFFER



Magento



Node JS



PHP



C / C++



React JS



Python



Java



Graphic  
Design



Web  
Design



Digital  
Marketing



Software  
Testing

100% JOB GUARANTEE

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