

# **Machine Learning**

Unlock the true potential within yourself with our machine learning course. In this course, you will learn various concepts and techniques of Machine Learning with Python.

The machine learning course additionally offers random forest, both supervised and unsupervised learning, statistics, machine learning algorithms, etc. You will get the opportunity to gain hands-on experience working with real-time data, classification, and other skills to gain the most benefit from your machine learning training.

# Skills You'll Gain

- · Supervised and unsupervised learning
- · Time series modelling
- · Linear and logistic regression
- Kernel SVM
- KMeans clustering
- · Naive Bayes
- · Decision tree
- · Random forest classifiers
- · Boosting and Bagging techniques
- · Deep Learning fundamentals



# Who is this course for?

The machine learning training is suitable for all candidates who want to learn more about working with data. Any professional who works at intermediate work experience levels can choose this machine learning training in Bangalore, including information architects, analytics experts, business analysts, and many more.

The machine learning course in Bangalore requires the candidate to know a few things before they get started. Aspirants should have basic knowledge of college-level mathematics and statistics. Familiarity with Python Programming will be a bonus. They also must understand every fundamental course like Python for Data Science, Math Refresher, and others, before they begin learning about Machine Learning

# Course curriculum

**Module 1: Introduction to Machine Learning** 

Module 2: introduction to AI & ML

- Emergence of Al
- Al & ML, definition, features and relationship.
- Machine learning approaches and techniques
- Application of Machine Learning

## Module 3: Data processing

- Data exploration
- Importing and storing data
- Data exploration techniques
- Correlation analysis
- Data Wrangling
- Missing and outlier values
- Data manipulation

## Module 4: Supervised learning

- Understanding Algorithm
- Supervised learning flow
- Classification algorithm
- Regression algorithm and the types
- Metrics to measure accuracy
- Challenges in prediction
- Sigmoid probability



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#### **Module 5: Feature engineering**

- Feature selection
- Regression
- Factor analysis
- Principal component analysis
- Linear discriminant analysis
- Maximum separable line

## **Module 6: Supervised learning**

- Classification and uses
- Classification algorithms
- Decision tree examples, formation and choosing
- Random forest classifier Bagging and bootstrapping
- Confusion matrix, cost matrix
- Naïve Bayes classifier
- Posterior probability and steps to calculate it
- Support vector machines linear separability and classification margin
- Linear and non-linear SVMs
- The Kernel trick
- Classify Kinematic data

#### **Module 7: Unsupervised learning**

- Introduction, example, and application of unsupervised learning
- Clustering
- Hierarchical clustering
- k-means clustering
- clustering image data

#### Module 8: Time series modelling

- Introduction, patterns of time series modelling
- White noise
- Stationarity
- Time series models and forecasting
- IMF commodity price forecast

## Module 9: Ensemble learning

- Introduction, methods of ensemble learning
- AdaBoost algorithm and flowchart
- Gradient Boosting
- XGBoost
- Model selection
- Common splitting strategies
- Tuning classifier Model with XGBoost

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### Module 10: Recommender systems

- Introduction, purpose, paradigms of Recommender systems
- Collaborative filtering
- Association rule mining
- Apriori algorithm

#### Module 11: Text mining

- Overview, significance, applications of text mining
- Natural language toolkit library
- Text extraction and processing Tokenization, N-grams, stop word removal, stemming, Lemmatization, POS tagging, named entity recognition
- NLP process workflow
- Wiki corpus
- Syntax tress
- Structuring sentences Chunking and chunk parsing
- NP and VP chunk Parser
- Chinking
- CFG



