

# WELCOME TO MINI E-GUIDE FOR MACHINE LEARNING



## Machine Learning: A Statistical Application

Machine learning is a method of data analysis that automates analytical model building. It is a branch of artificial intelligence based on the idea that systems can learn from data, identify patterns and make decisions with minimal human intervention.

Do you get automatic recommendations on Netflix and Amazon Prime about the movies you should watch next? Or maybe you get options for People You may know on Facebook or LinkedIn? You might also use Siri, Alexa, etc. on your phones. That's all Machine Learning! This is a technology that is becoming more and more popular. Chances are that Machine Learning is used in almost every technology around you!

## Types of Machine Learning:

1. Regression
2. Classification

### 3. Clustering

Select the algorithm for information

Regression

Regression analysis is a form of predictive modelling technique which investigates the relationship between a dependent (target) and independent variable (s) (predictor). This technique is used for forecasting, time series modelling and finding the causal effect relationship between the variables. For example, relationship between rash driving and number of road accidents by a driver is best studied through regression.

$$Y = a + b * X1 + c * X2 + d * X3 + \epsilon$$



