MACHINE LEARNING

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Machine Learning is a concept which allows the machine learn from examples and experience, and that too without being explicitly programmed.
So instead of writing the Code , only the data is feeded to the generic algorithm, and the algorithm/ machine builds the logic based on the given data.

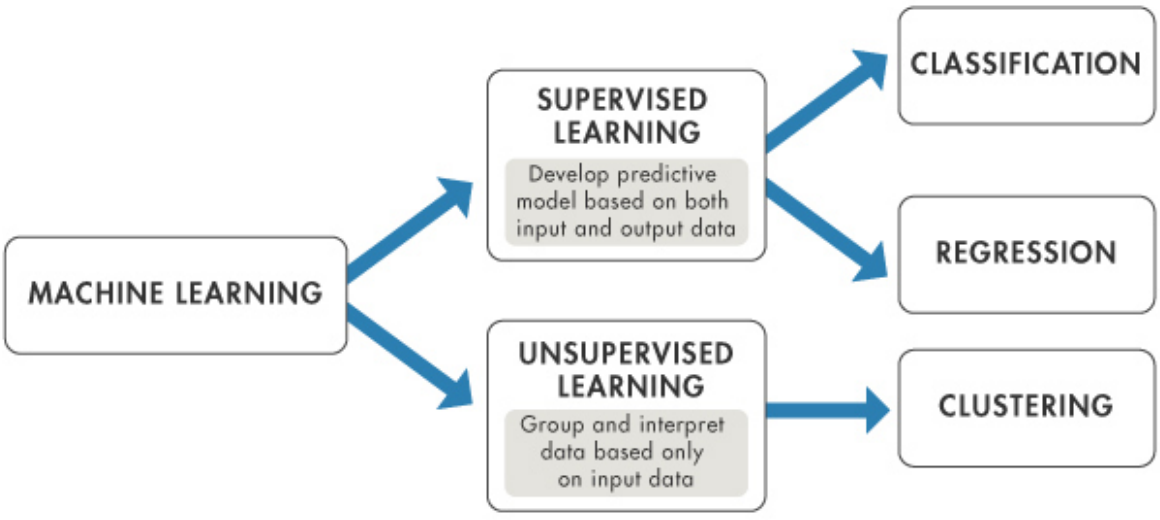
What is Machine Learning ?

• Machine Learning is a subfield of computer that is Evolved from the study of pattern recognition and computational learning theory in artificial intelligence.
• It is a field of Study that gives computers the ability to learn without being explicitily programmed.
"The Valuabe part of machine learning is predictive modeling where we use historical data to train a model and use the model to make predictions"
• The field of machine learning is concerned with the question of how to construct computer programs that automatically improve without experience"

Where is Machine Learning used ?

• The military data mining is used to learn what roles various factors play in the accuracy of the bombs.
• Intelligence agencies might use it to determine which of a hugr quantity of intercepted communications are of interest.
• Medical researchers might use it to predict the likelihood of a cancer relapse.

MACHINE LEARNING Algorithms



1. SUPERVISED ALGORITHM :

• Mainly used in Predictive Modelling.
• **labeled data** is used in Unsupervised Learning

Popular Algorithms :

1. Linear Regression
2. Logistic Regression
3. Support Vector Machines (SVM)
4. Neural Networks
5. Decision Tress
6. Naive Bayes
7. Nearest Neighbour.

2. UNSUPERVISED ALGORITHM :

• The image or input given are grouped together here and insights on the input can be found here.
• It is used for **Clustering Problems (grouping), Anomaly Detection (in Banks for unusual transactions)** where there is a need for finding relationships among the given data
• **Unlabelled data** is used for training here.

Popular Algorithms :

1. k- means clustering
2. Association

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