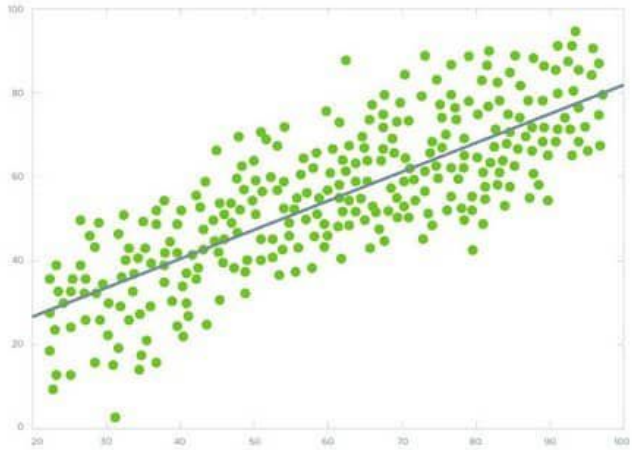
Machine learning Algorithms.

Regression Algorithms

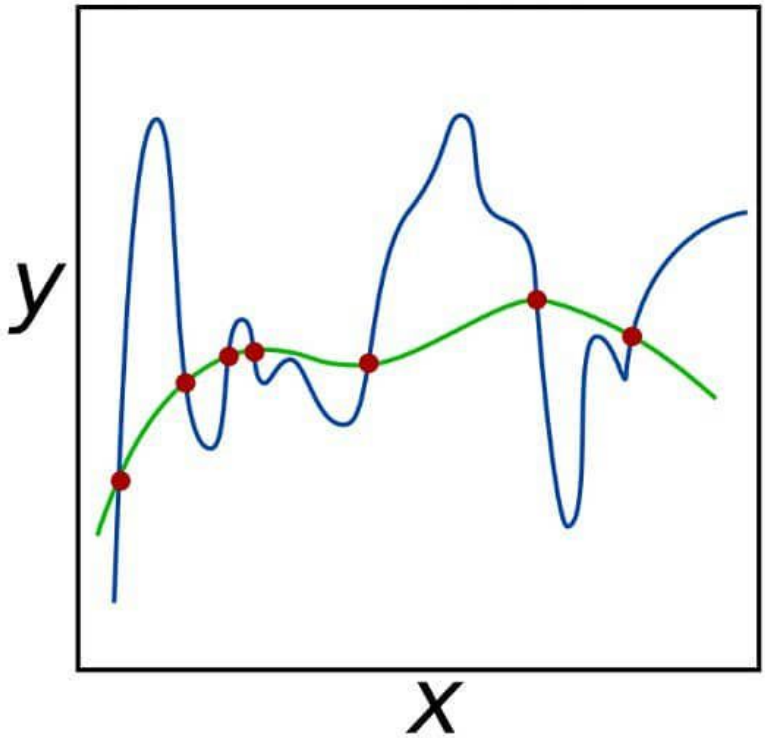


- Ordinary Least Squares Regression (OLSR)
- Linear Regression
- Logistic Regression
- Stepwise Regression
- Multivariate Adaptive Regression Splines (MARS)
- Locally Estimated Scatterplot Smoothing (LOESS)
- Polynomial regression
- Support vector Regression

we will explain each algorithm in detail in upcoming posts

Machine learning Algorithms.

Regularization Algorithms

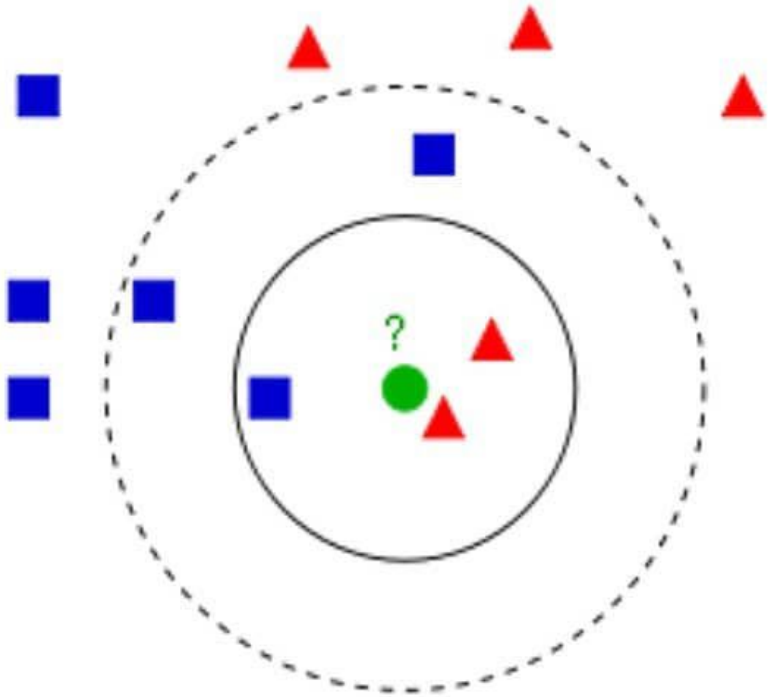


- **Ridge Regression**
- **Least Absolute Shrinkage and Selection Operator (LASSO)**
- **Elastic Net**
- **Least-Angle Regression (LARS)**

we will explain each algorithm in detail in upcoming posts

Machine learning Algorithms.

Instance-based Algorithms

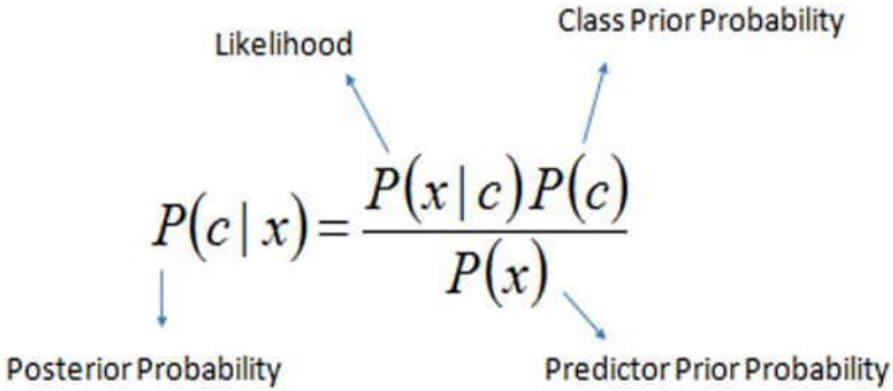


- k-Nearest Neighbor (kNN)
- Learning Vector Quantization (LVQ)
- Self-Organizing Map (SOM)
- Locally Weighted Learning (LWL)

we will explain each algorithm in detail in upcoming posts

Machine learning Algorithms.

Bayesian Algorithms



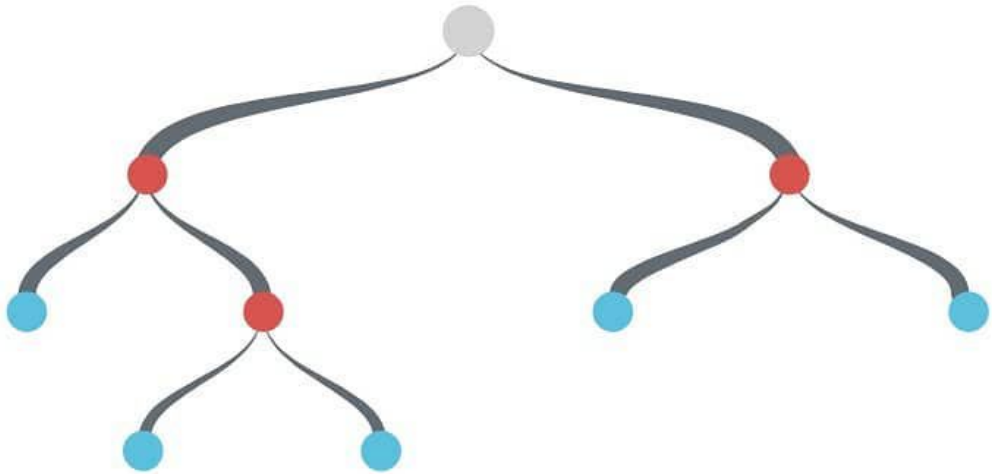
$$P(c \mid \mathrm{X}) = P(x_1 \mid c) \times P(x_2 \mid c) \times \cdots \times P(x_n \mid c) \times P(c)$$

- **Naive Bayes**
- **Gaussian Naive Bayes**
- **Multinomial Naive Bayes**
- **Averaged One-Dependence Estimators (AODE)**
- **Bayesian Belief Network (BBN)**
- **Bayesian Network (BN)**

we will explain each algorithm in detail in upcoming posts

Machine learning Algorithms.

Decision Tree Algorithms

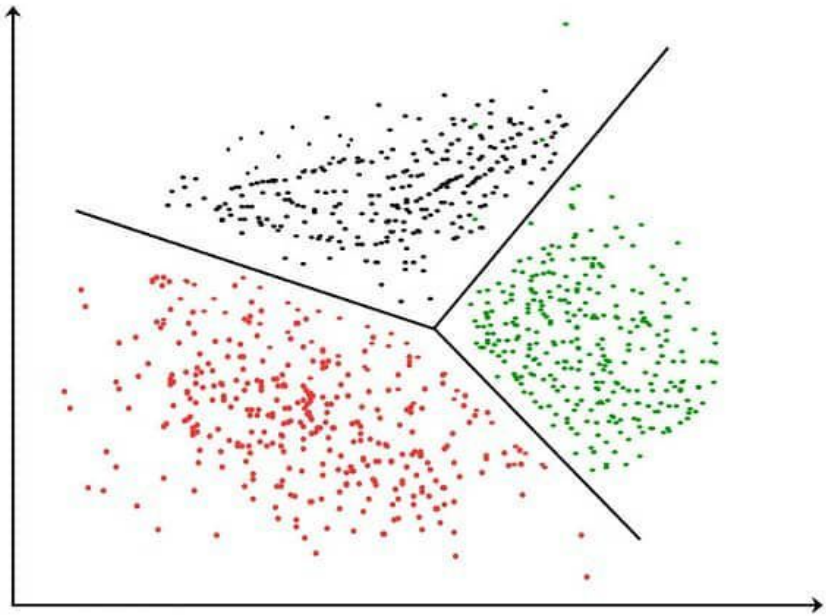


- Classification and Regression Tree (CART)
- Iterative Dichotomiser 3 (ID3)
- C4.5 and C5.0 (different versions of a powerful approach)
- Chi-squared Automatic Interaction Detection (CHAID)
- Decision Stump
- M5
- Conditional Decision Trees

we will explain each algorithm in detail in upcoming posts

Machine learning Algorithms.

Clustering Algorithms

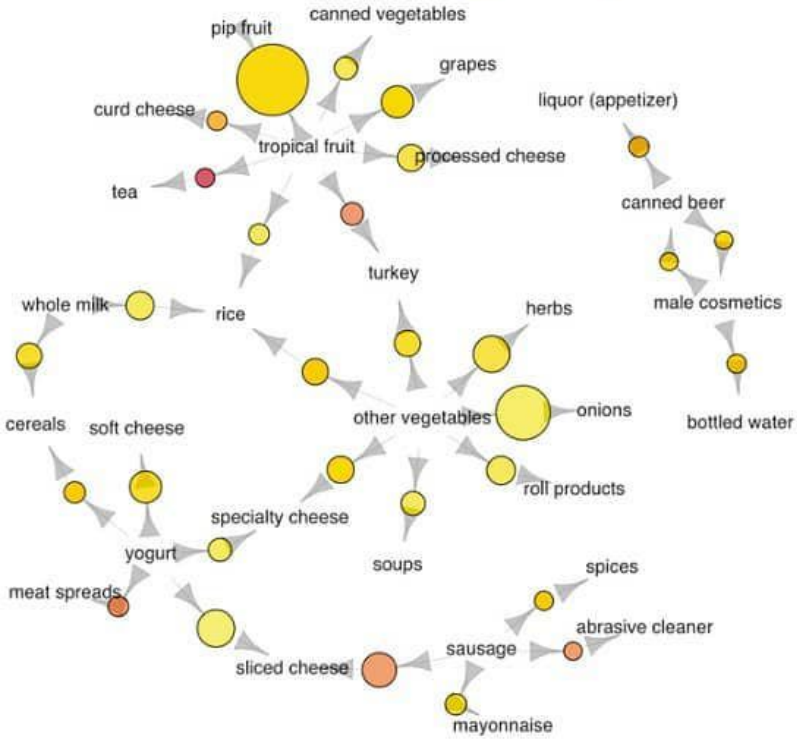


- k-Means
- k-Medians
- Expectation Maximisation (EM)
- Hierarchical Clustering
- DBSCAN

we will explain each algorithm in detail in upcoming posts

Machine learning Algorithms.

Association Rule Learning Algorithms

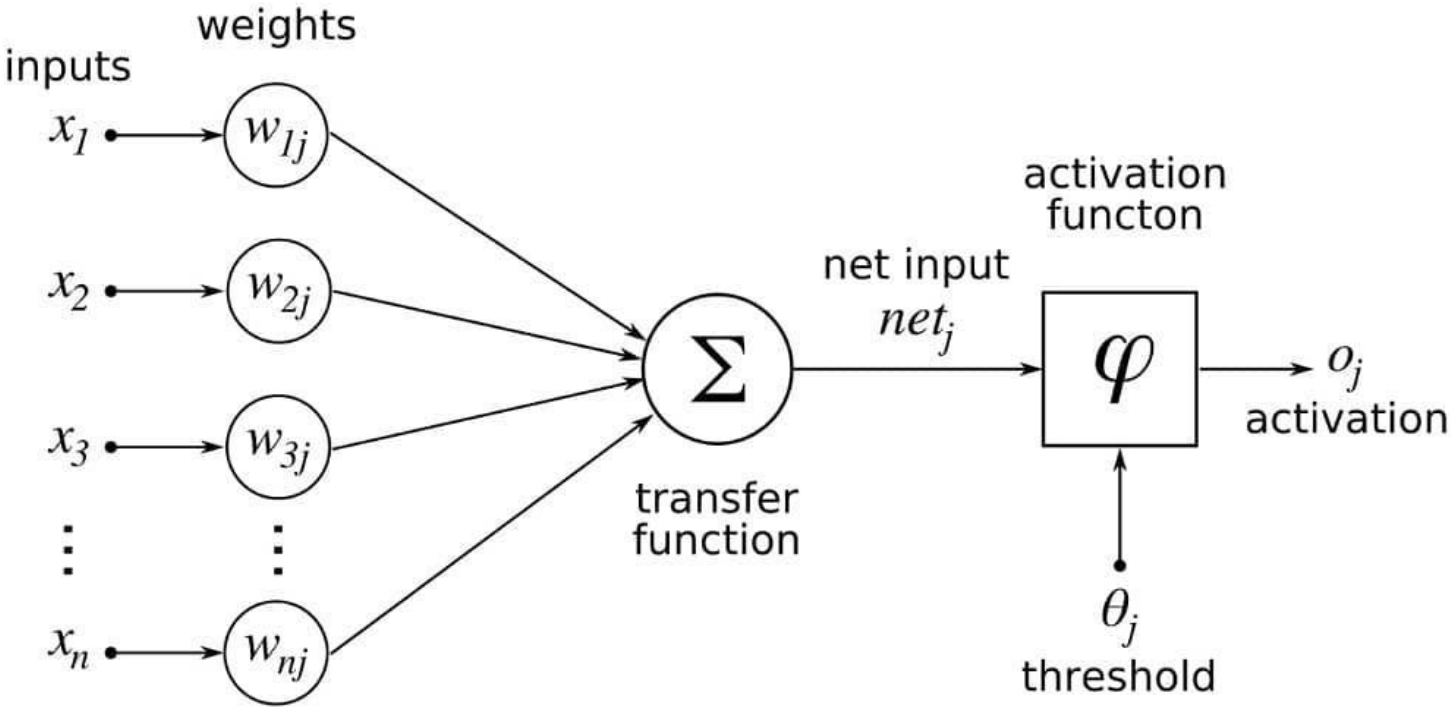


- **Apriori algorithm**
- **Eclat algorithm**
- **FP - Growth**

we will explain each algorithm in detail in upcoming posts

Machine learning Algorithms.

Artificial Neural Network Algorithms

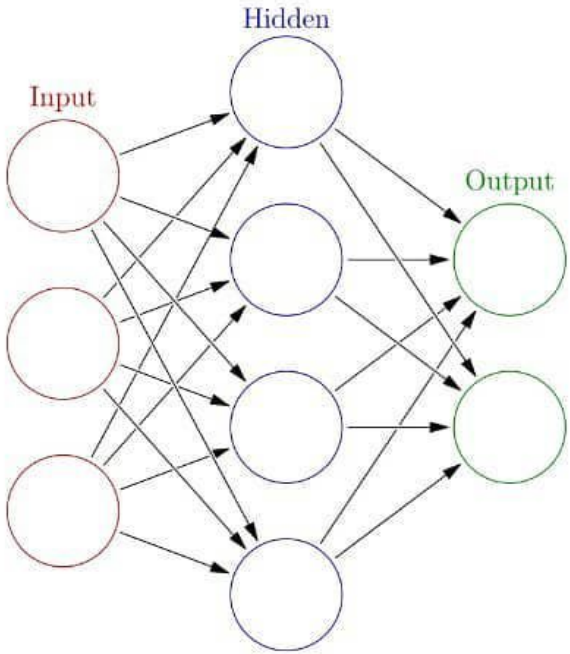


- **Perceptron**
- **Back-Propagation**
- **Hopfield Network**
- **Radial Basis Function Network (RBFN)**

we will explain each algorithm in detail in upcoming posts

Machine learning Algorithms.

Deep Learning Algorithms

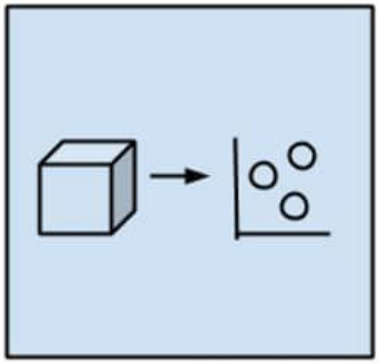


- **Perceptron**
- **Back-Propagation**
- **Hopfield Network**
- **Radial Basis Function Network (RBFN)**

we will explain each algorithm in detail in upcoming posts

Machine learning Algorithms.

Dimensionality Reduction Algorithms



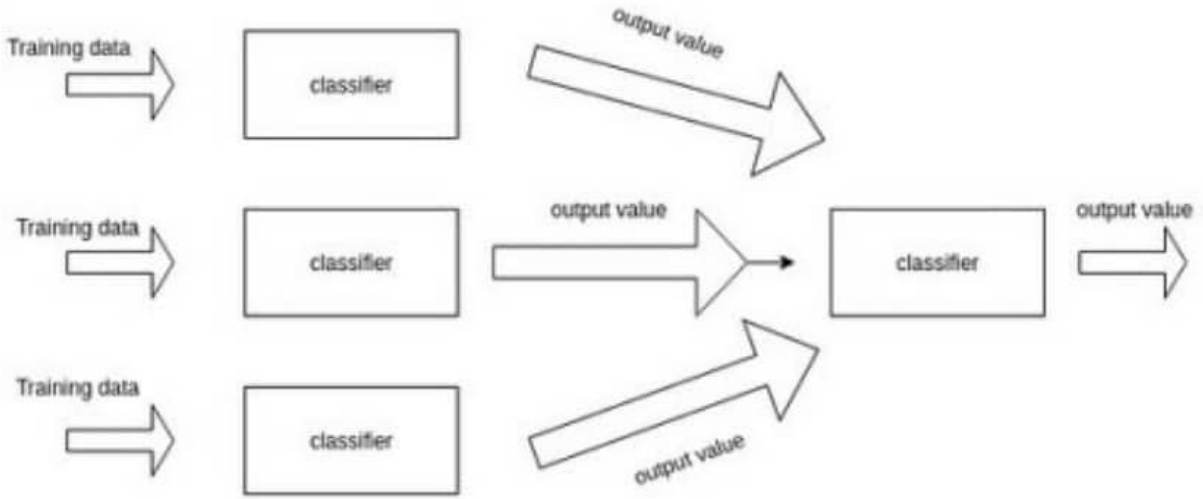
Dimensional Reduction Algorithms

- **Principal Component Analysis (PCA)**
- **Principal Component Regression (PCR)**
- **Partial Least Squares Regression (PLSR)**
- **Sammon Mapping**
- **Multidimensional Scaling (MDS)**
- **Projection Pursuit**
- **Linear Discriminant Analysis (LDA)**
- **Mixture Discriminant Analysis (MDA)**
- **Quadratic Discriminant Analysis (QDA)**
- **Flexible Discriminant Analysis (FDA)**

we will explain each algorithm in detail in upcoming posts

Machine learning Algorithms.

Ensemble Algorithms

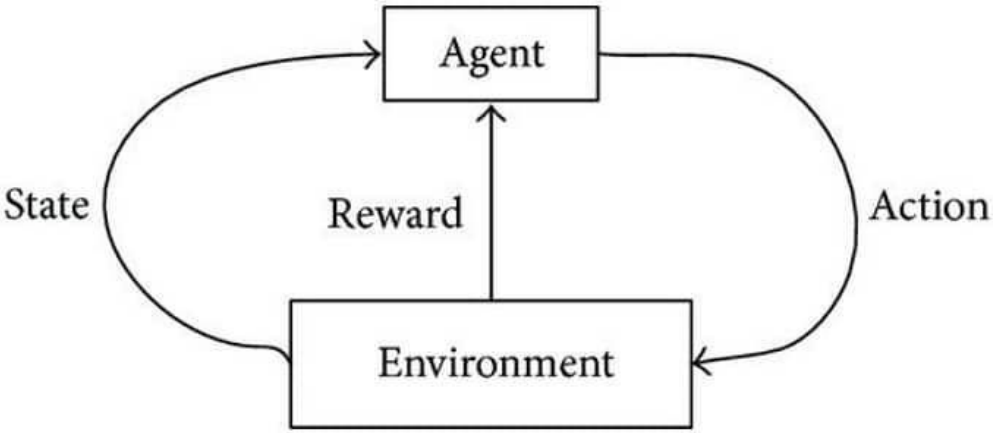


- **Bootstrapped Aggregation (Bagging)**
- **Random Forest (Bagging)**
- **Stacked Generalization (blending)**
- **Gradient Boosting Machines (GBM)**
- **Gradient Boosted Regression Trees (GBRT)**
- **AdaBoost (Boosting)**
- **XGBoost (Boosting)**
- **CATBoost (Boosting)**
- **LightGBM (Boosting)**

we will explain each algorithm in detail in upcoming posts

Machine learning Algorithms.

Reinforcement learning algorithms

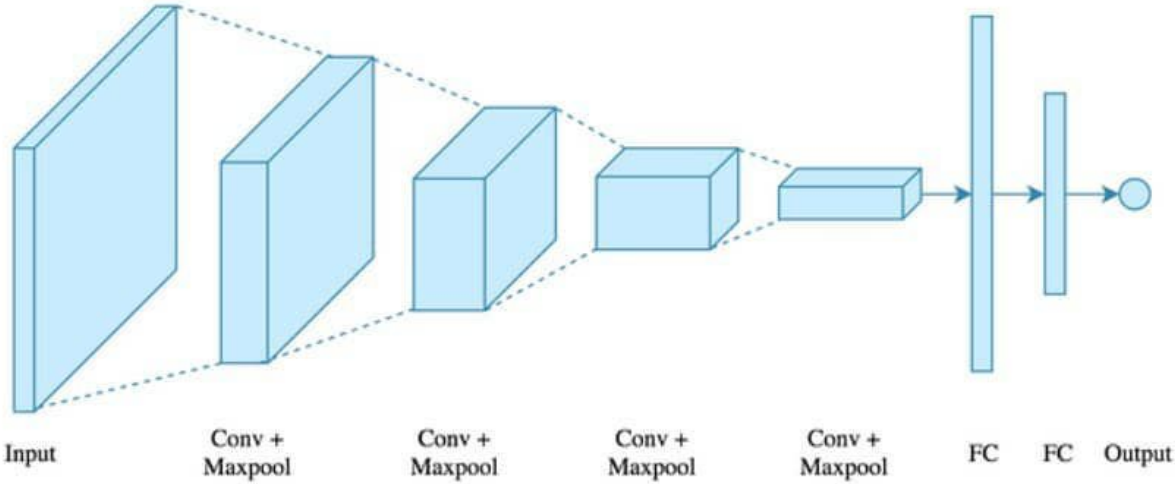


- Q-learning
- State-Action-Reward-State-Action (SARSA)
- A3C
- Deep Q Network (DQN)
- Deep Deterministic Policy Gradient (DDPG)
- Actor-Critic Algorithm
- Natural Policy Gradient
- DAgger (Dataset Aggregation)
- Monte Carlo Tree Search (MCTS)
- Guided Policy Search (GPS)

we will explain each algorithm in detail in upcoming posts

Machine learning Algorithms.

convolutional neural network algorithms

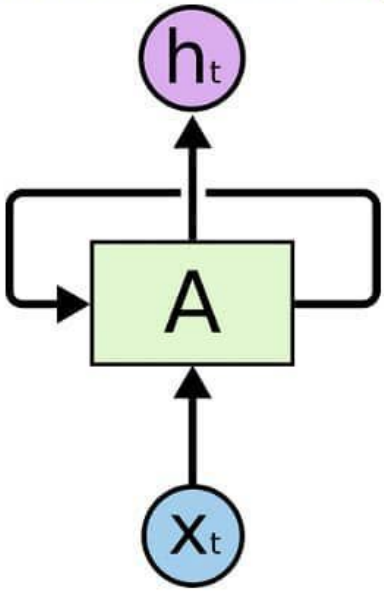


- **Deep CNN**
- **LeNet**
- **AlexNet**
- **VGGNet**
- **Residual Net**
- **Inception Net**
- **R-CNN**
- **Fast R-CNN**
- **Faster R-CNN**
- **YOLO**

we will explain each algorithm in detail in upcoming posts

Machine learning Algorithms.

Recurrent neural network algorithms



- Deep RNN
- LSM
- GRU
- LSTM
- BI - RNN
- Attention models
- Word Embeddings

we will explain each algorithm in detail in upcoming posts

Machine learning Algorithms.

Feature Selection algorithms

- **Filter Methods**
- **Wrapper Methods**
- **Embedded Methods**

we will explain each algorithm in detail in upcoming posts