# Machine Learning

### **Basics**

- 1. What is Machine Learning
- 2. History of Machine Learning
- 3. Applications of Machine Learning
- 4. Machine Learning Life Cycle
- 5. Installing Anaconda and Python
- Difference between Artificial Intelligence and Machine Learning
- 7. Data Preprocessing in Machine Learning
- 8. Supervised Machine Learning
- 9. Unsupervised Machine Learning
- 10. Difference between Supervised and UnSupervised Learning

## Advance

- 1. Regression Analysis in Machine Learning
- 2. Linear Regression in Machine Learning
- 3. Simple Linear Regression in Machine Learning
- 4. Multiple Linear Regression
- 5. what is Backward Elimination?
- 6. ML Polynomial Regression
- 7. Classification Algorithm in Machine Learning
- 8. Logistic Regression in Machine Learning
- 9. KNN Algorithm for Machine Learning
- 10. SVM Alogrithm
- 11. Naive Bayes Classifier Algorithm
- 12. Regression vs Classification in Machine Learning
- 13. Linear Regression vs Logistic Regression

# Deep Learning

- 1. Introduction
- 2. Environment
- 3. Deep Basic Machine Learning
- 4. Artifical Neural Networks
- 5. Deep Neural Networks
- 6. Fundamentals
- 7. Training a Neural Network
- 8. Computational Graphs
- 9. Applications
- 10. Libraries and Frameworks
- 11. implementations

### **Tensor Flow**

- 1. Introduction
- Installation
- 3. Understanding Artificial Intelligence
- 4. Mathematical Foundations
- 5. Machine Learning and Deep Learning
- 6. Basics
- 7. Convolutional Neural Networks
- 8. Recurrent Neural Networks
- 9. TensorBoard Visualization
- 10. Word Embedding
- 11. Single Layer Perceptron
- 12. Linear Regression
- 13. TF learn and its installation
- 14. CNN AND RNN Difference

- 15. Keras
- Distributed computing
- 17. Exporting
- 18. Multi Layer Perceptron Learning
- 19. Hidden Layer of Perceptron
- 20. Optimizers
- 21. XOR Implementation
- 22. Gradient Descent Optimization
- 23. Forming Graphs
- 24. Image Recognition using TF
- 25. Recommendations for Neural Network Training