

Machine Learning Course Content

1. Introduction:

- Machine Learning Introduction
- Supervised Learning concepts
- Unsupervised Learning concepts

2. Regression:

- Simple Linear Regression
- Multiple Linear Regression
- Polynomial Linear Regression
- Support Vector Regression
- Decision Tree Regression
- Random Forest Regression

3. Classification:

- Logistic Regression
- K-Nearest Neighbours
- Support Vector Machine
- Kernel SVM
- Native Bayes
- Decision Tree Classification
- Random Forest Classification

4. Clustering:

- K-Means Clustering
- Hierarchical Clustering

5. Association rule learning

- Apriori
- ECLAT

6. Natural Language Processing

- Language Processing

7. Deep Learning

- Artificial Neural Networks
- Convolutional Neural Networks
- Recurrent Neural Networks
- Self-Organizing Maps
- Boltzmann Machines
- Auto Encoders

8. Dimensionality Reduction

- Principal Component Analysis
- Linear Discriminant Analysis
- Kernel PCA

9. Model Selection & Boosting

- Model selection
- XGBoost

10. Time series Analysis

- Trends & Seasonality
- ARIMA, GARCH