

Neural Networks and Deep Learning

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Projected Timeline of Project

Phase 1:

Supervised Learning (Classification and Regression Algorithms)

Phase 2:

Unsupervised Learning (K-means Clustering) and Deep Learning

Goals

- To understand the underlying principles for Neural Networks.
- Basics of Supervised and Unsupervised Learning.
- Learn various ML algorithms (SVM, KNN, K-MEANS, ...)
- To be able to implement Neural Networks.
- Use Deep Learning algorithms for Neural Networks and implement them.

Detailed Planning for each phase

Phase 1:

Learn Supervised learning algorithms:

- Linear Regression
- Logistic Regression
- SVM Algorithm
- Decision Algorithm
- KNN Algorithm

Phase 2:

Learn Unsupervised learning algorithm:

- K-Means Clustering Algorithm

Learn Deep Learning algorithms:

- Backpropagation
- Feedforward Neural Networks (FNN)
- Convolutional Neural Networks (CNN)
- Recurrent Neural Networks (RNN)

Application of these algorithms.