

Deep Learning with TensorFlow & Keras

Description

Our Deep Learning Course will give you all the knowledge needed to work on Deep Learning libraries like Keras and Tensorflow. In this training you we will learn about what AI, ML, explore neural networks, understand deep learning frameworks, and implement various machine learning algorithms using Deep Networks. We will also explore how different layers in neural networks do data abstraction and feature extraction using Deep Learning.

Expectations and Goals

Deep Learning and TensorFlow Concepts
Using Python with TensorFlow Libraries
Working with Convolutional Neural Network (CNN)
Recurrent Neural Network (RNN)
Working with Keras
Implementing Restricted Boltzmann Machine (RBM)

Prerequisites

Anybody interested in Deep Learning can take this Training. Though knowledge of following will be a plus point:

- Python programming
- Machine Learning

Course Schedule

Module	Topic
Module 1	Why Deep Learning? What is a neural network? Reasons to go Deep Choice of Deep Net
Module 2	Introduction to Artificial Neural Networks Feedforward Neural networks Backpropagation Activation functions MLP
Module 3	Introduction to python Python data types Functions Classes Modules
Module 4	Introduction to Numpy Creating N-Dimensional numpy arrays Array mathematics Slicing N-Dimensional array Introduction to pandas Working with pandasSeries Working with pandas Dataframe
Module 5	Restricted Boltzmann Machines Deep Belief Nets Convolutional Networks Recurrent Nets
Module 6	Autoencoders Recursive Neural Tensor Nets
Module 7	Introduction to TensorFlow

	HelloWorld with TensorFlow Basic computation with TensorFlow
Module 8	Introduction to Keras Keras vs TensorFlow Building Basic models with Keras
Module 9	CNN History Understanding CNNs CNN Application using Keras
Module 10	Intro to RNN Model Long Short-Term memory (LSTM) Recursive Neural Tensor Network Theory Applications of Unsupervised Learning Restricted Boltzmann Machine
Module 11	Project work and documentation