OBJECT ARENA SOFTWARE SOLUTIONS (p) LTD

DEEP LEARNING

Greetings from Object Arena:

The Workshop from OA is designed to enhance your knowledge and skills to become a successful professional. In-depth knowledge of core concepts will be covered in this workshop along with development of various applications.

Deep Learning workshp: DL is a branch of machine learning based on a set of algorithms that attempt to model high level abstractions in data.

Course Content:

- Introduction to : Deep Learning, GPUs and Minsky

- Installing and configuring

- Basics of Deep Learning Framework and Libraries

- Tensor Flow Lab

    - Hands on using Tensor flow

    - Neural Networks

    - Vector representations of words

    - Word embedding

    - Visualization

    - Image (Recognition / Classification)

- Training a Deep Learning model on a set of data

    - MXNet and ImageNet (features, Data Preparation, Compute Image Mean, Model Definition, Training ImageNet)

- Benefits of PASCAL

    - Scalability

    - Application in Training and inference

    - Update on CUDA / OpenACC

PYTHON

Course Content:

- How would python be useful ?

- Setting up your machine.

- Learn the basics of python language –

    o Lists

    o Tuples

    o Dictionaries

    o List Comprehensions

    o Dictionary Comprehensions

- Regular Expressions in Python

- Scientific libraries in Python

    o NumPy

    o SciPy

    o Matplotlib

    o Pandas

- Effective Data Visualization

- Scikit – learn and Machine Learning

Workshop Goal: By the end of the workshop the participants will understand the difference between the traditional machine learning and Deep learning. He/She should be able to understand how to model deep networks. The participants should be able to write programs using python for various machine/Deep learning applications using Linux based systems. The participants should be able to use GPU for developing CNN's for various applications and also be able to use DIGITS for various applications.