

Week 1:

Exp1:

Tutorial on TensorFlow, Keras, and Deep Learning Frameworks

- **Objective:** Familiarize yourself with tools and frameworks like TensorFlow and Keras, which are essential for deep learning.
- **Task:**
 - a. Install and set up TensorFlow and Keras in your environment (local system or cloud platform).
 - b. Explore the MNIST dataset and understand its structure.
 - c. Use TensorFlow/Keras to load the MNIST dataset, preprocess the data (normalization, reshaping, etc.), and visualize a few sample images with their corresponding labels.
 - d. Create a basic feedforward neural network using Keras to classify the MNIST dataset into its 10 digit classes (0-9).
 - e. Train the model, evaluate its performance, and visualize the loss and accuracy curves.
- **Outcome:** Understand how to utilize TensorFlow and Keras for basic image classification tasks.