Synopsis: MNIST Dataset

Description:

The MNIST dataset consists of a collection of 28x28 pixel grayscale images of handwritten digits (0-9).

It contains a total of 70,000 images, divided into 60,000 training samples and 10,000 testing samples.

Each image is labelled with the corresponding digit it represents.

High Dimensionality:

Each image in the MNIST dataset is represented as a matrix of pixel values, resulting in high-dimensional feature vectors.

Specifically, each image consists of 28x28 = 784 pixels, which are typically flattened into a 1D array of length 784.

Therefore, each image is represented by a high-dimensional feature vector with 784 dimensions.