# Guided Projects Artificial Intelligence & Machine Learning

## Guided Projects: Supervised Learning

## Handwritten Digit Recognition

**Digit recognition system** is the working of a **machine to train** itself for recognizing the digits from **different sources** like **emails, bank cheque, papers, images**, etc. and in different real-world scenarios for online **handwriting recognition** on computer tablets or system. Developing such a system includes a machine to **understand and classify** the images of **handwritten digits** as 10 digits (0–9). **Handwritten digits from the MNIST** database has been one of the **most famous databases** among the machine **learning community** for many recent decades.

**Question:**

Use MNIST dataset to create a classifier for all the 10 digits. First implement the classifier by squeezing the image into a vector and then using a MLP. Now, try the same task using a different machine learning classifier such as an SVM to check the gain in performance by using perceptrons as compared to conventional machine learning techniques.