Problem statement:

1. The **handwritten digit recognition** is the capability of computer applications to **recognize** the human **handwritten digits**.
2. It is a hard task for the **machine** because **handwritten digits** are not perfect and can be made with many different shapes and sizes.
3. The **handwritten digit recognition system** is a way to tackle this problem which uses the image of a **digit** and recognizes the **digit** present in the image.
4. Convolutional **Neural Network** model created using **PyTorch library** over the **MNIST dataset** to **recognize handwritten digits** .
5. **Handwritten Digit Recognition** is the capability of a computer to fete the mortal handwritten integers from different sources like images, papers, touch defenses, etc, and classify them into 10 predefined classes **(0-9)**.
6. This has been a  Content of bottomless- exploration in the field of deep literacy.
7. Number recognitionhas numerous operations like number plate recognition, postal correspondence sorting, bank check processing, etc .
8. In Handwritten number recognition,   we face numerous challenges  because of different styles of jotting of different peoples as it  is not an Optic character recognition.
9. This exploration provides a comprehensive comparison between different machine literacy and deep literacy algorithms for the purpose of handwritten number recognition. For this, we've used Support  Vector Machine, Multilayer Perceptron, and Convolutional **Neural Network**.
10. The comparison between these algorithms is carried out on the base of their delicacy, crimes, and testing- training time corroborated by plots and maps that have been constructed using **matplotlib** for visualization.