A NOVEL METHOD FOR HANDWRITTEN DIGIT RECOGNITION SYSTEM

PROBLEM STATEMENT:

The handwritten digit recognition is the capability of computer applications to recognize the human handwritten digits. It is a hard task for the machine because handwritten digits are not perfect and can be made with many different shapes and sizes. 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. Convolutional Neural Network model created using PyTorch library over the MNIST dataset to recognize handwritten digits .

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). This has been a Content of bottomless- exploration in the field of deep literacy. Number recognition has numerous operations like number plate recognition, postal correspondence sorting, bank check processing, etc . (2). 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. 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. 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.