Optical Character Recognition For Hand Written Digits  
and Computer Fonts

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Abstract

Optical Character Recognition(OCR) is one of the most useful applications of machine learning. The aim of this project was to learn models which could classify hand written digits and various computer fonts. Various machine learning techniques have shown good results in this field, this project includes three such models. Using these models we were able to achieve accuracy of upto 87% and 83% for notMNIST and MNIST datasets respectively.

Introduction

The problem that we attempt to solve is to classify the hand-written digits(0 to 9) and computer fonts. That is our model is trying to learn the classification of letters and digits correctly.

The motivation of the project is that using the models learnt these can be applied to the unseen data which are computer fonts or handwritten digits and obtain the corresponding classification. It can be used to convert scanned documents to digital document formats, or can be used to read natural language texts for example, like our model can output the number on license plate of any vehicle given the input.

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