

Literature Survey 1.

Bangla Handwritten Digit Recognition and Generation.

Published in: <https://arxiv.org/abs/2103.07905>.

Related DOI : https://doi.org/10.1007/978-981-13-7564-4_46

Date : 14 Mar 2021

Abstract:

This article discusses the theme of creating the service that specializes in accounting for reading activities. The purpose of the research is to create methods of classifying and sorting literary works that can be integrated into any literary digital resource to expand its functionality. The created service is an Android application, which provides functions for keeping a reading diary and creating literary recommendations based on works added to the user's personal library. One of the complementary options of the application is the feature of expanding the literature base by scanning ISBN code of books that are not in the Google Books database.

2.

Handwritten Digit Recognition using Machine Learning Algorithms

Published in: Global Journals

Online ISSN: 0975-4172 & **Print ISSN:** 0975-4350

Author: S M Shamim, Mohammad Badrul Alam Miah

Date : Year 2018

Abstract:

Handwritten character recognition is one of the practically important issues in pattern recognition applications. The applications of digit recognition includes in postal mail sorting, bank check processing, form data entry, etc. The heart of the problem lies within the ability to develop an efficient algorithm that can recognize hand written digits and which is submitted by users by the way of a scanner, tablet, and other digital devices. This paper presents an approach to off-line handwritten digit recognition based on different machine learning technique. The main objective of this paper is to ensure effective and reliable approaches for recognition of handwritten digits. Several machines learning algorithm namely, Multilayer Perceptron, Support Vector Machine, Naïve Bayes, Bayes Net, Random Forest, J48 and Random Tree has been used for the recognition of digits using WEKA. The result of this paper shows that highest 90.37% accuracy has been obtained for Multilayer Perceptron.

3.

Comparative Analysis of Algorithms Used in Handwritten Digit Recognition

Published in: June 2021

Online ISSN: 2395-0056

Author: Dr. Anjana S Chandran, Athila V

Abstract:

Handwriting style differ from person to person. The handwritten digits are not always in the same width, size and orientation. In order to develop a system to understand this, includes a machine to recognize and classify the images of handwritten digits as ten digits (0 to 9). It is widely used by researchers for many applications such as computerized bank check numbers reading. Various machine learning and deep learning algorithms are used for this purpose. This paper focus on recognizing the handwritten digits i.e. 0 to 9 from the well-known MNIST dataset were 60000 samples are used for training the model and 10000 samples are used for testing the model. A comparative analysis of machine learning algorithms such as Decision tree, Logistic regression, k-nearest neighbors (KNN) and deep learning algorithm Convolutional Neural Network (CNN) is presented in this paper. In order to test the efficiency of these algorithm, the dataset is preprocessed and given as input to the algorithm and its precision, recall, f1 score and accuracy are found and compared.

4.

A Multi-language Handwritten Digit Recognition Dataset

Published in: 8 Apr 2020

Author: Weiwei JIANG

Abstract:

In this letter, we contribute a multi-language handwritten digit recognition dataset named MNIST-MIX, which is the largest dataset of the same type in terms of both languages and data samples. With the same data format with MNIST, MNIST-MIX can be seamlessly applied in existing studies for handwritten digit recognition. By introducing digits from 10 different languages, MNIST-MIX becomes a more challenging dataset and its imbalanced classification requires a better design of models. We also present the results of applying a LeNet model which is pre-trained on MNIST as the baseline. key words: Deep Learning, Handwritten Digit Recognition, Convolutional Neural Network.

5.

Handwritten Character Recognition based on Artificial Neural Network

Published in: Global Journals

Online E-ISSN: 2347-2693

Author: Rajdeep Singh

Date : 11, Nov 2018

Abstract:

In current scenario, character recognition is the most important field of pattern recognition because of its application in numerous fields. Optical Character Recognition (OCR) and Handwritten Character Recognition (HCR) has specific domain to use. OCR system is most fitted for the applications like multi selection examinations, written communication address resolution etc. In returning days, character recognition system would possibly function a key issue to make paperless setting by digitizing and process existing paper documents. During this paper, we have planned the detail study on existing strategies for hand written character recognition based on ANN. This paper presents an in depth review within the field of handwritten Character Recognition.