

# **Group 146 Project Report: textOCR**

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## **1 Introduction**

- We are creating an application that extracts text from an image, otherwise known as Optical Character Recognition (OCR). It is a multiclass classification task using images with text on it as its input data. It can also be seen as a single label classification task where each data point will be classified into only one class representing the character that it is. We will create a command line application that takes an image with English text as input and outputs the text on the image into the terminal. It involves implementing a number of different parts of the machine learning and model training process such as image preprocessing, text recognition, and character recognition. We shall use machine learning libraries such as OpenCV, NumPy, Scikit-Learn and PyTorch to implement them. If we have the time, we would like to extend the OCR to recognize text in natural photographs (e.g. recognize text in a photo of a stop sign).

## **2 Dataset**

- from the sheet. check the data set from. refer to the new data set.

## **3 Features and Inputs**

- diff features and inputs for pre processing.

## **4 Implementation**

## **5 Evaluation and Progress**

- Copy the description of the old model.

## **6 Error Analysis**

- Need to figure out

## **Team Contributions**

## **7 Figures and Tables**