

Groot

Project Id - 18

Project Title - **Blob Detection(used to find the name of the book and writer)**

Github link - <https://github.com/Naagar/Groot>

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Input: images acquired by scanning book covers

Main Goal -Finding the Blob in an image using **Lindeberg's watershed-based grey-level blob detection algorithm.**

Steps:

Step-1: Preprocessing(To set the threshold so that we can find the text

- reading the image.
- converting a color image to grayscale image.
- Sharpening of the grey level image (high boost filtering)
 - first blurring with Gaussian filter, unsharp mask and
- Finding the threshold using the Histogram analysis.
- Setting the threshold

Step-2: Lindeberg's watershed-based grey-level blob detection algorithm.

Text Information extraction(from the output)

Step-4: Detection

- the existence or nonexistence of text in the image must be determined

Step-5: Localization(Binarization techniques)

- text localization methods can be categorized into two types:
region-based and texture-based
- Zhong CC-based method.

Step-6: Tracking

Step-7:Extrection & enhacement Recognition.

**First, we will try to find out the background and the Text region
Grayscale intensity with the help of the histogram analysis.**

**After finding the threshold for the text in a grayscale image from the
histogram, we will use the “Blob Detection” method to find out the text
region.**

Then we will use some text information extraction methods

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