APPM4058A & COMS7238A Project – Report

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04 May 2020

1   Introduction

This project aims to detect the numbers within a given Sudoku puzzle using strictly image processing techniques and produce a 2D output array to be consumed by a Sudoku puzzle solver. The output should be written to a text file which can be consumed by the Sudoku solver library.

2   Problem Domain

The problem domain for this project is to apply image processing techniques on given Sudoku puzzle image. The image processing techniques used span the following domains: image thresholding, connected component analysis, boundary detection and the filtering of images using mathematical morphological operations.

3   Dataset

4   Methodology

Detailed description and walk through of your approach

5   Reasons for various choices and steps in your approach

6   Which algorithms are used from the DIP course, or extensions.

7   Examples of input and output produced by your program

8   Conclusion

References