Project Milestone: Convolutional Neural Network to Image Segmentation

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Abstract

The ABSTRACT is to be in fully-justified italicized text, at the top of the left-hand column, below the author and affiliation information. Use the word "Abstract" as the title, in 12-point Times, boldface type, centered relative to the column, initially capitalized. The abstract is to be in 10-point, single-spaced type. Leave two blank lines after the Abstract, then begin the main text. Look at previous CVPR abstracts to get a feel for style and length.

1. Introduction

Image segmentation refers to the partition of an image into a set of regions to cover it, to represent meaningful areas [2]. The goal is to simplify and/or change the representation of an image into something that is more meaningful and easier to analyze [1].

Segmentation has two main objectives: the first one is to decompose the image into parts for further analysis and the second one is to perform a change of representation [2]. Also, segmentation must follow some characteristics to identify regions, as it follows:

- Regions of an image segmentation should be uniform and homogeneous with respect to some characteristic, such as gray level, color, or texture [2];
- Region interiors should be simple and without many small holes [2];
- Adjacent regions of a segmentation should have significantly different values with respect to the characteristic on which they are uniform [2];
- Boundaries of each segment should be smooth, not ragged, and should be spatially accurate [2].

The organization of this paper is as follows. In the next Section we discuss the problem statement. In Section 3 its explained how the will work and the results we expect. Then in Section 4 we present an some preliminary results.

2. Problem Statement

3. Technical Approach

4. Preliminary Results

References

[1] S. A. Ahmed, S. Dey, and K. K. Sarma. Image texture classification using artificial neural network (ann). In *2011 2nd National Conference on Emerging Trends and Applications in Computer Science*, pages 1–4, March 2011.

[2] D. Domnguez and R. R. Morales. *Image Segmentation: Advances*, volume 1. 2016.