

Tim Hung
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CS 455
Assignment 1
Programming Design Writeup

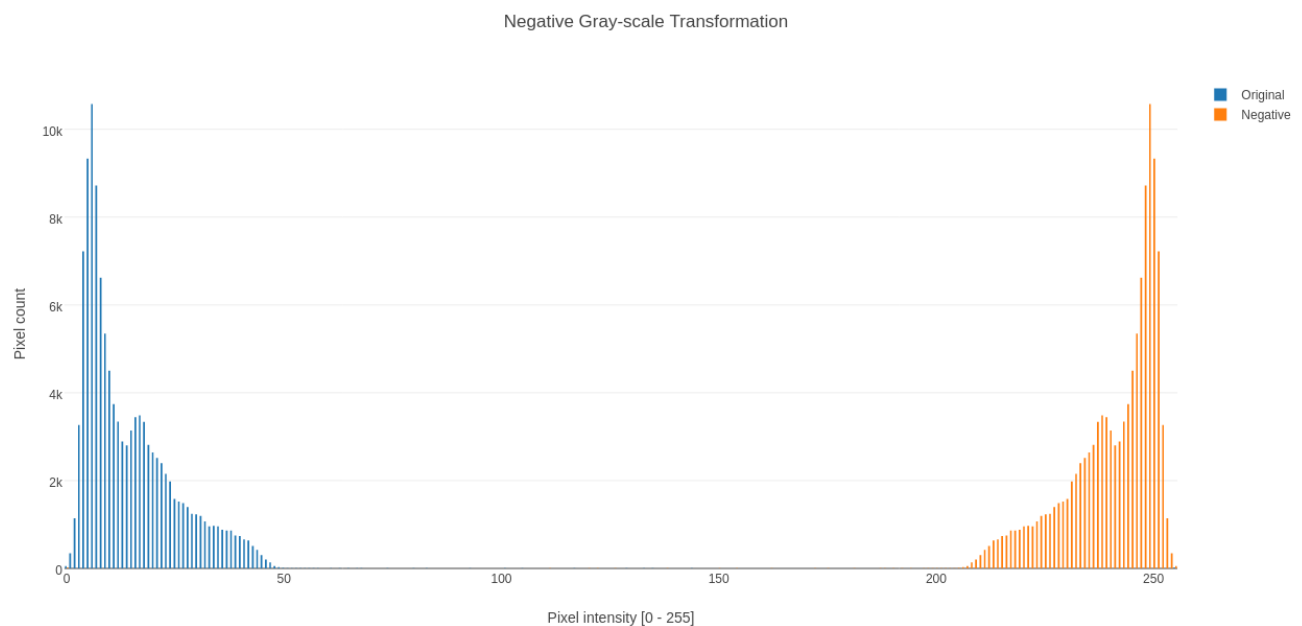
0. Purpose: To explore different implementations and applications of image enhancement.

I. Image gray-scale transformation and enhancement

1. Negative transformation function: $y = 255 - x$



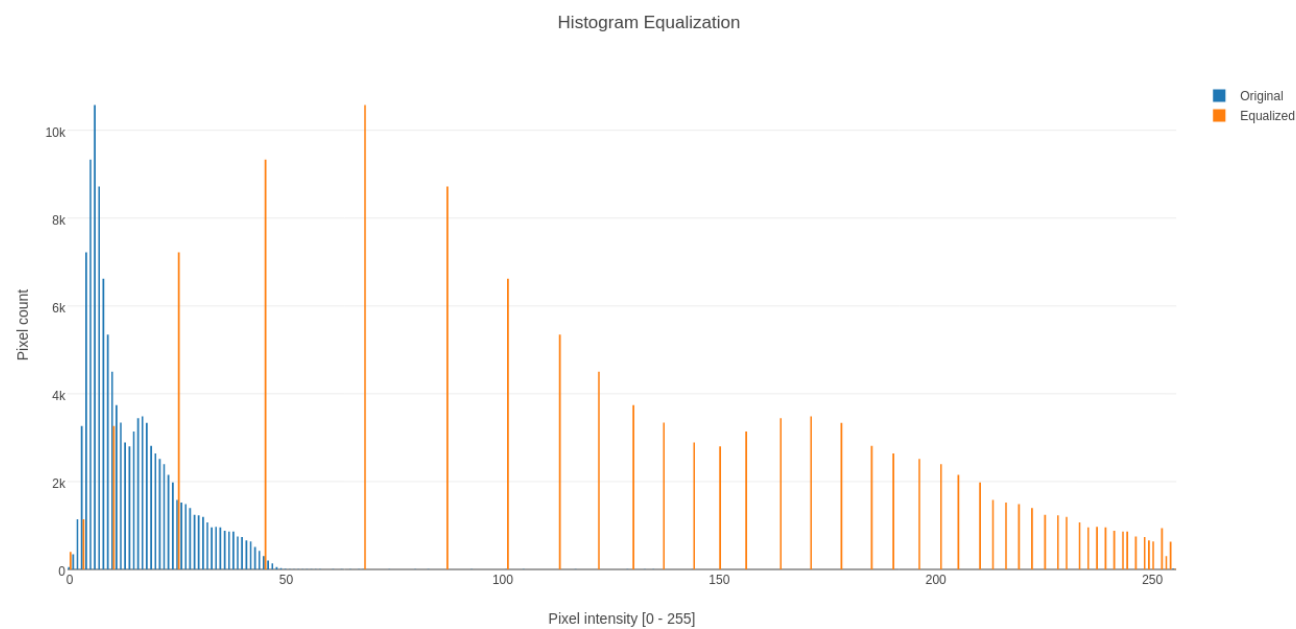
2) Histogram of original and negative



3. Histogram equalization 1



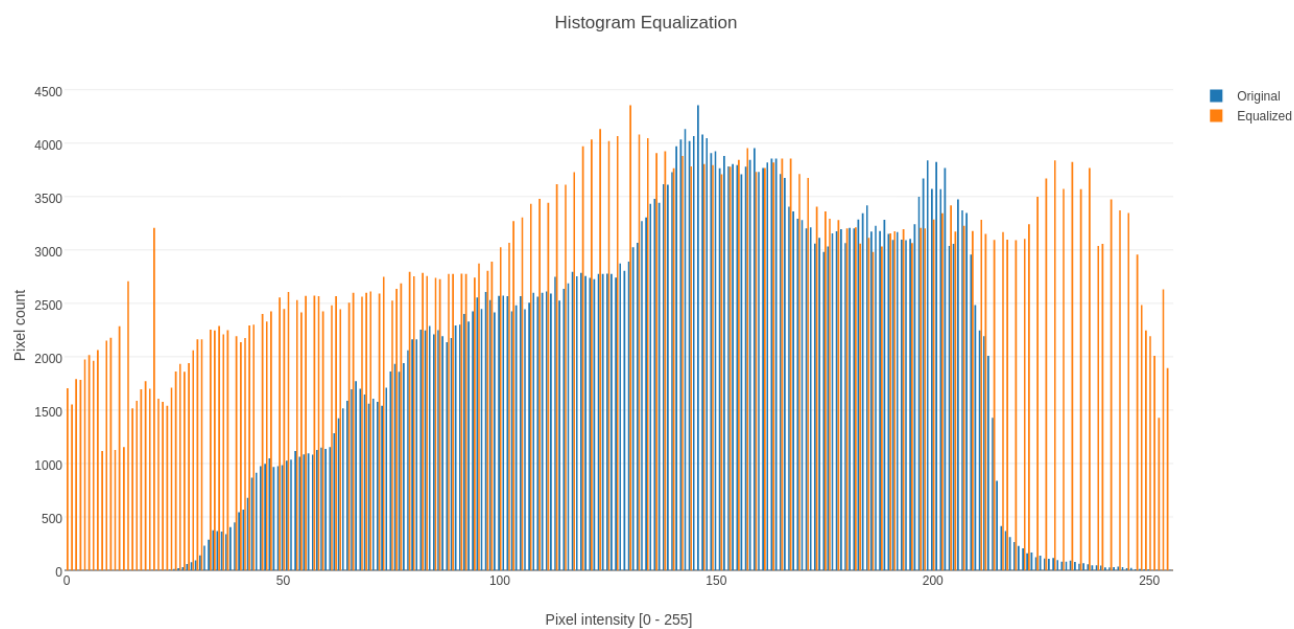
Histogram of original image and histogram equalized image



4. Histogram equalization 2



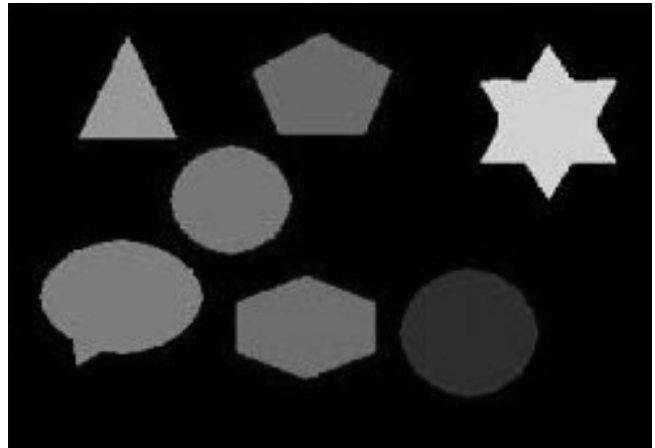
Histogram of original image and histogram equalized image



I. Region detection

1. Shapes

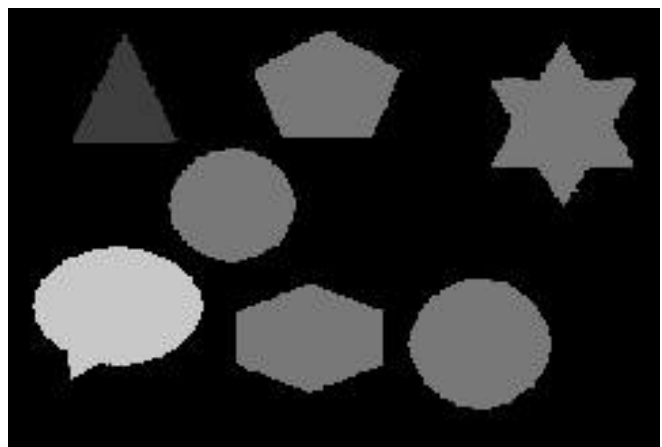
Original Image:



Binary image transformation:



Region coloring by size:



2. Binary image transformation 2

Original Image:



Binary image transformation:



Region coloring by size:

