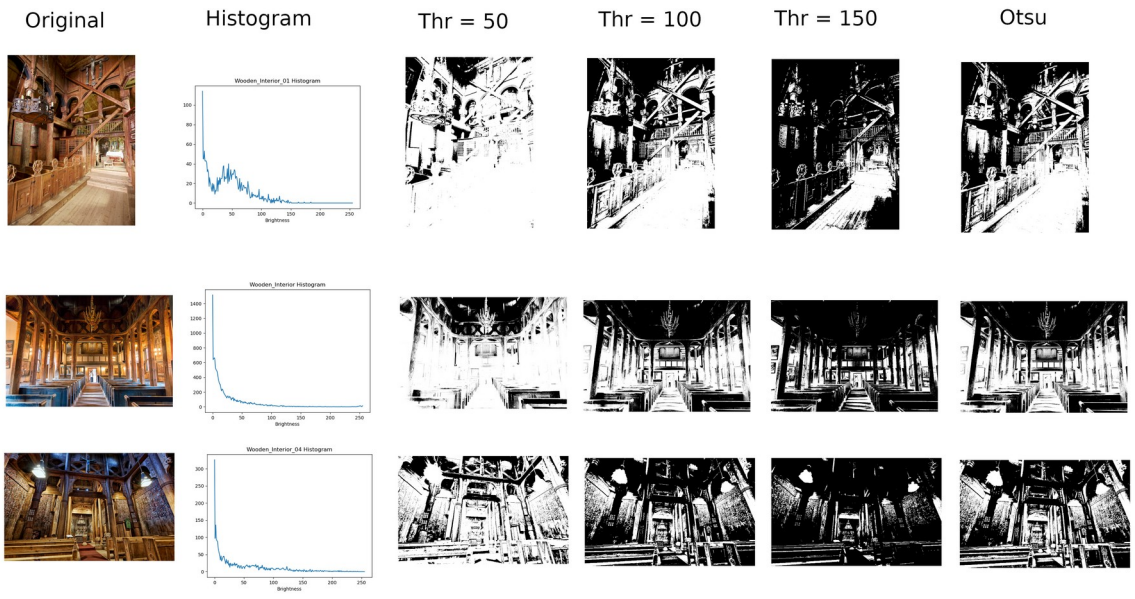
Programming Assignment 5: Image Segmentation

In this assignment the goal is to implement both Standard Image Binarization and Otsu Thresholding in order to perform image Thresholding. Thresholding for this assignment is defined as making a pixel either completely white (Pixel Intensity = 255) or completely black (Pixel Intensity = 0) based on whether the Pixel's Actual Intensity between 0-255 is above or below a certain Pixel Intensity value. Segmenting an image in this manner makes it easier to identify distinct key points in an image.

So we will be implementing 2 methods of Thresholding. The first method is Standard Image Binarization where we manually choose the Threshold value between 0-255. We will test 3 threshold values and see the results. The second method is called Otsu Thresholding where we create an algorithm that automatically finds the best Threshold value for a particular image.

The Results are shown below :



(Note that Higher Resolution images are stored in the Output_Images folder of the project.)