project #1: High Dynamic Range Imaging

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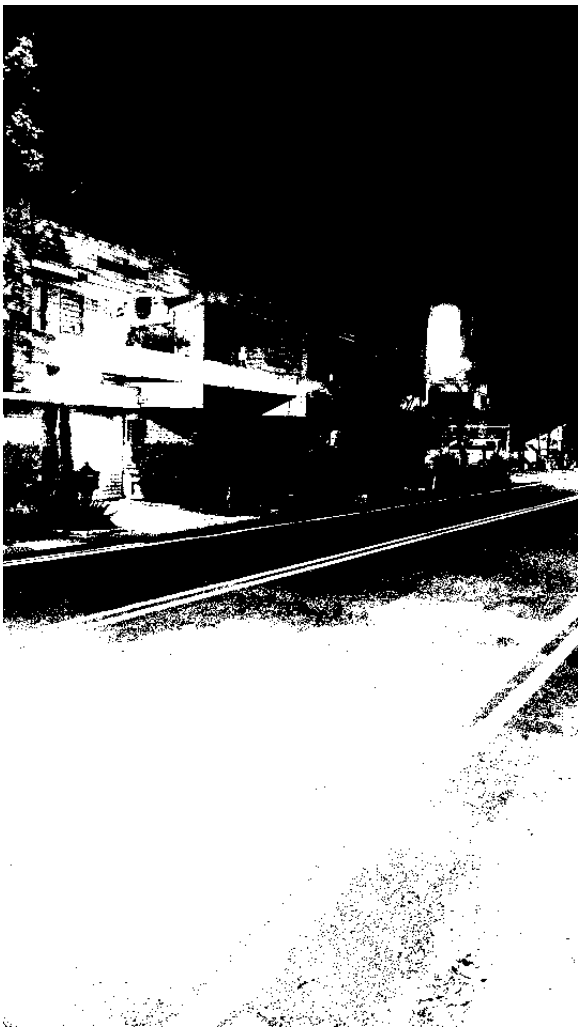
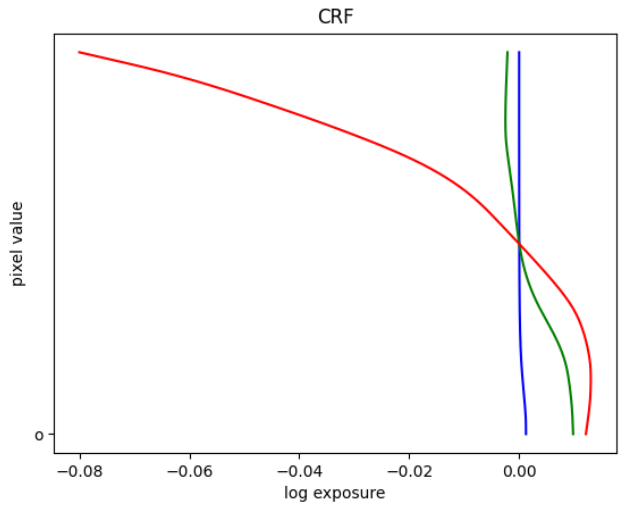
1. MTB Alignment
    a. MTB Alignment was implemented using OpenCV threshold, inRange, bitwise_xor and bitwise_and.
    b. Threshold image and exclusive mask were generated to align the images.



Threshold image

Exclusive mask

2. HDR
    a. HDR was implemented based on the MATLAB code.
    b. SDV least squares solution was calculated using numpy.linalg.lstsq.
    c. CRF of the 3 channels were calculated separately.
    d. Radiance map was saved as a .hdr file.

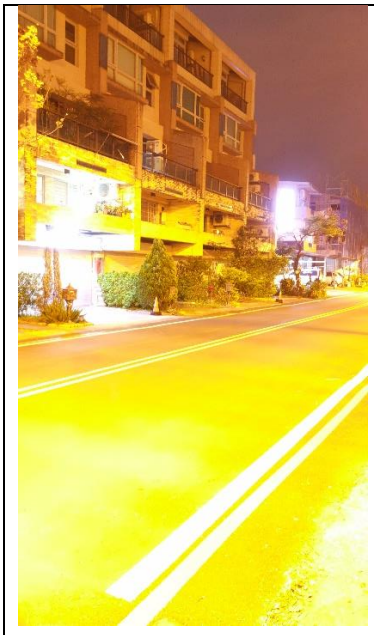
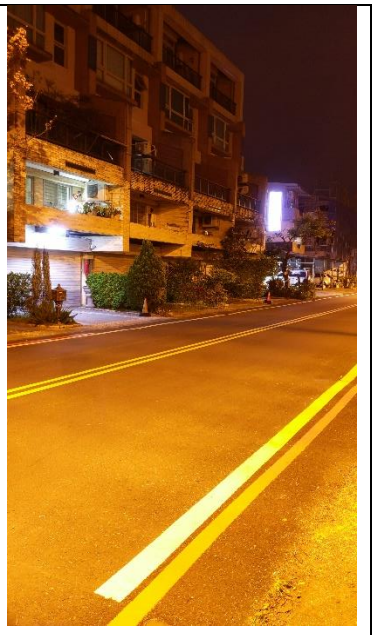
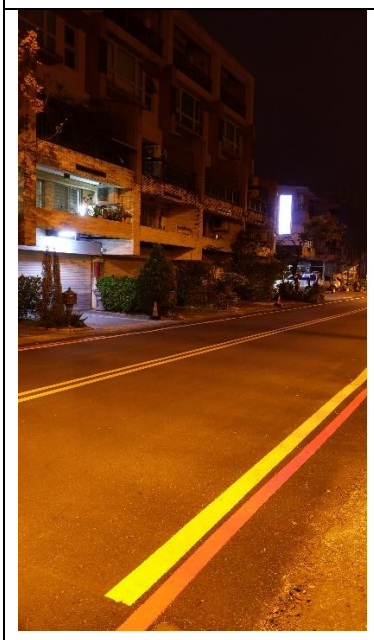


CRF for 3 channels

HDR image

3. Tone Mapping Result
    a. Tone mapping utilized the program Luminance HDR v.2.6.0 http://qtpfsgui.sourceforge.net/

4. Original Images

		
4s	2s	1s
		
1/2s	1/4s	1/8s

		
1/16s	1/32s	1/64s
		
1/128s	1/256s	1/512s