

Table lookup, absdiff

orig



lut



absdiff



absdiff₁



add

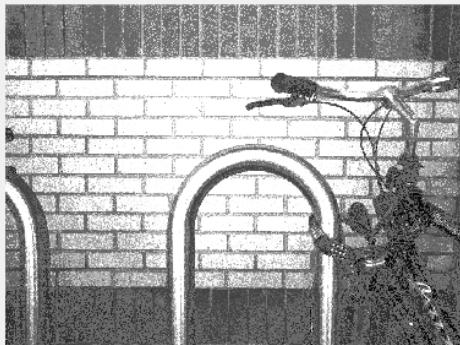
original



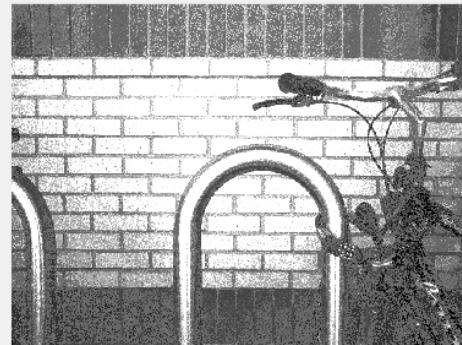
absdiff



add openvx



add matlab



subtract

original



absdiff



sub openvx



sub matlab

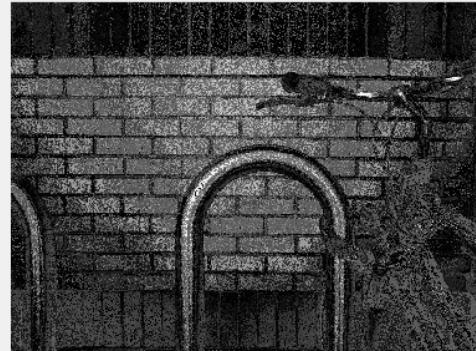


Multiplication

original



absdiff



nearest even, scale(1/255)



to zero, scale(1/128)

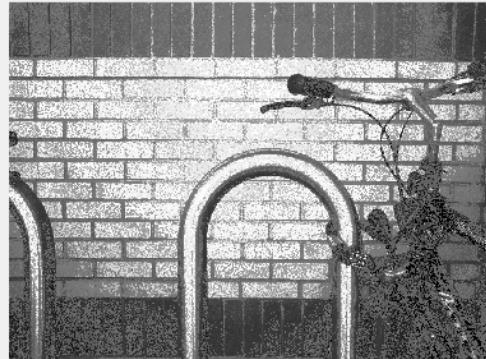


bitwise (and, or, xor, not)

and



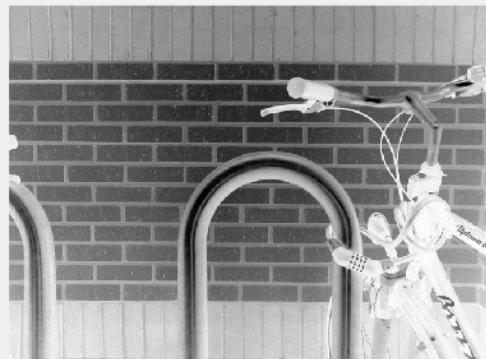
or



xor



not



box, Gaussian, median

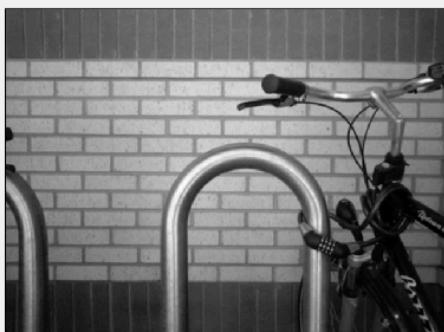
original bikegray



gaussian



box



median

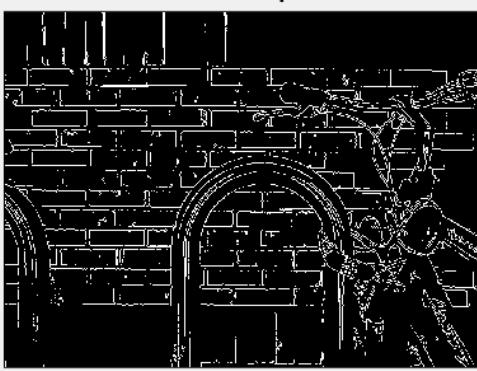


Canny with different thresholds

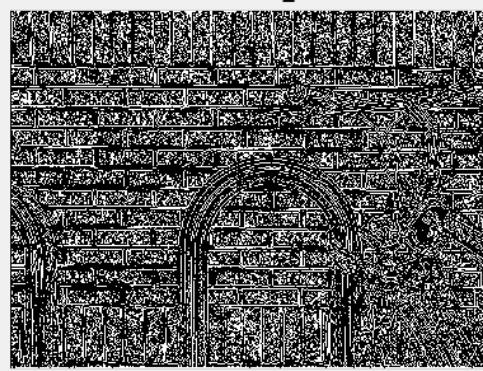
original bikegray



canny₁

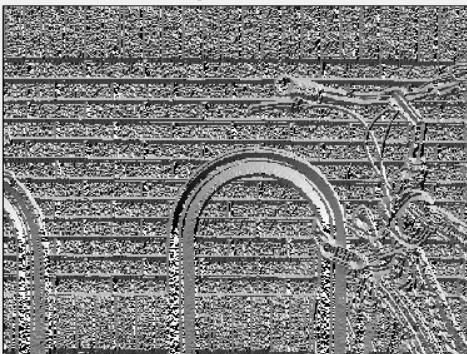


canny₂

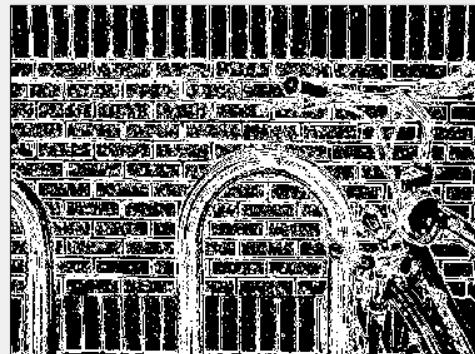


soble -->phase, thresh --> erode, dilate

phase



thresh



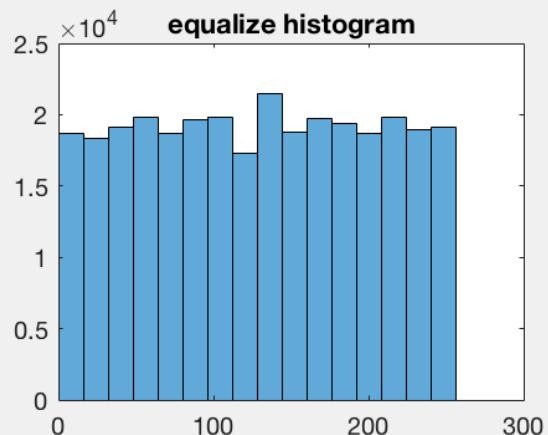
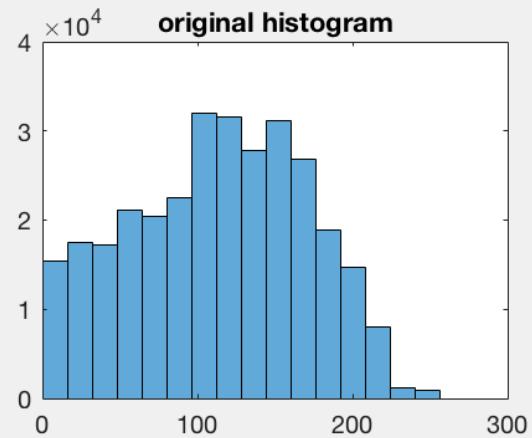
erode



dilate



histogram, equal histogram



results from running openvx histogram program vs results from matlab histogram function.

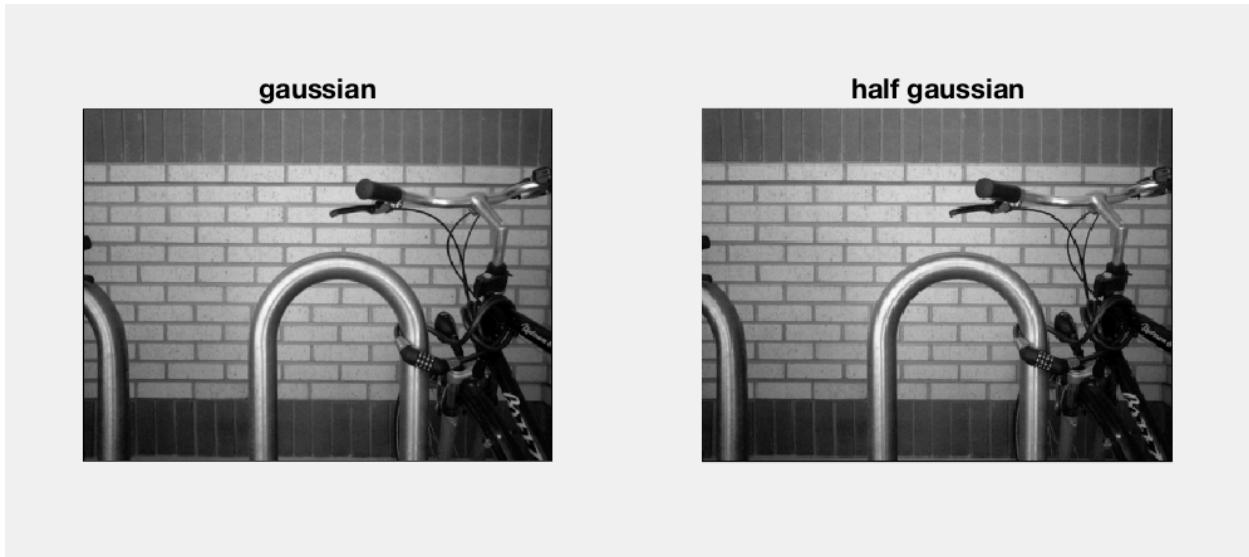
```
jovyan@7eeaf145b774:~/work/build-openvx/examples/bin_kernels$ ./histogram
AFTER VERIFICATION (status: 0)
histogram[0] = 15469
histogram[1] = 17439
histogram[2] = 17229
histogram[3] = 21166
histogram[4] = 20429
histogram[5] = 22489
histogram[6] = 32019
histogram[7] = 31594
histogram[8] = 27741
histogram[9] = 31209
histogram[10] = 26815
histogram[11] = 18871
histogram[12] = 14639
histogram[13] = 7990
histogram[14] = 1202
histogram[15] = 899
total number of pixels = 307200
```

```

ans =
Columns 1 through 9
    15469    17439    17229    21166    20429    22489    32019    31594    27741
Columns 10 through 16
    31209    26815    18871    14639    7990     1202     899

```

Gaussian, half Gaussian (half size)



mean, standard deviation (openvx results vs matlab results)

```

jovyan@7eeaf145b774:~/work/build-openvx/examples/bin_kernels$ ./mean_std
AFTER VERIFICATION (status: 0)
Mean = 112.228287
Stddev = 56.563004
AFTER GRAPH EXECUTION (status: 0)

```

```

L56
L57      %mean, standard dev
L58 -    img_orig = imread('bikegray_640x480.pgm');
L59 -    mean_orig = mean2(img_orig);
L60 -    std_orig = std2(img_orig);
L61 -    fprintf('mean = %f, std = %f \n',mean_orig,std_orig);
L62

```

Command Window

```
mean = 112.228285, std = 56.563003
```

scale, remap

