PS2

Scott Powers
spowers36@gatech.edu

1-a-1

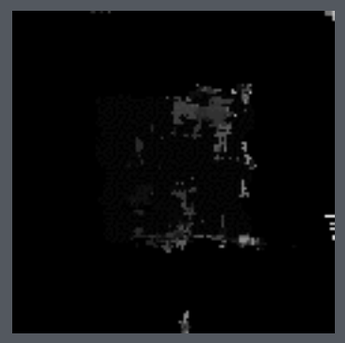
1-a-2

2-a-1

2-a-2

2-a

There are many differences with the ground truth images. First, the areas in the border regions of the image are less consistent and provide unreliable depth data. There are also numerous regions that have extremely high values of difference (corresponding to points not present in both images). The borders of objects are also less clearly defined in this method than they are with the ground truth images.



3-a-1

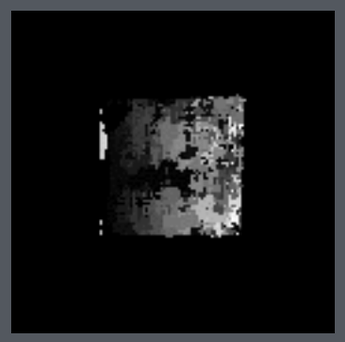
3-a-2

3-a

Compared to the first images the noise causes inconsistency between the L to R and R to L images. It is unclear to me why one seems to work fine and the other produces very poor results.

The better of the two images is still not on par with the version lacking noise. The edges are poorly defined for the square, and there are regions throughout the image that are found at an incorrect depth.

3-b-1



3-b-2

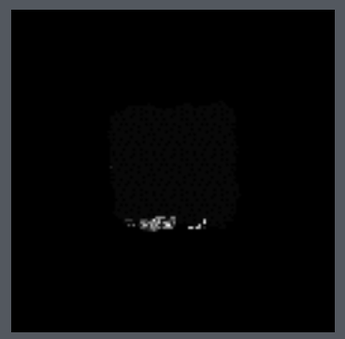
3-b

The increased contrast caused poor performance compared to the baseline, however it was not as detrimental as the noisy version. Again, one direction performed better than the other, which is odd. The edges are defined nicely. The actual performance is better than I anticipated.

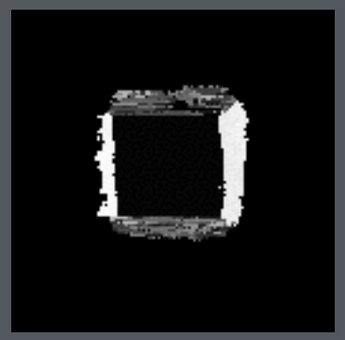
4-a-1

4-a-2

The results here are comparable to the SSD version.



4-b-1



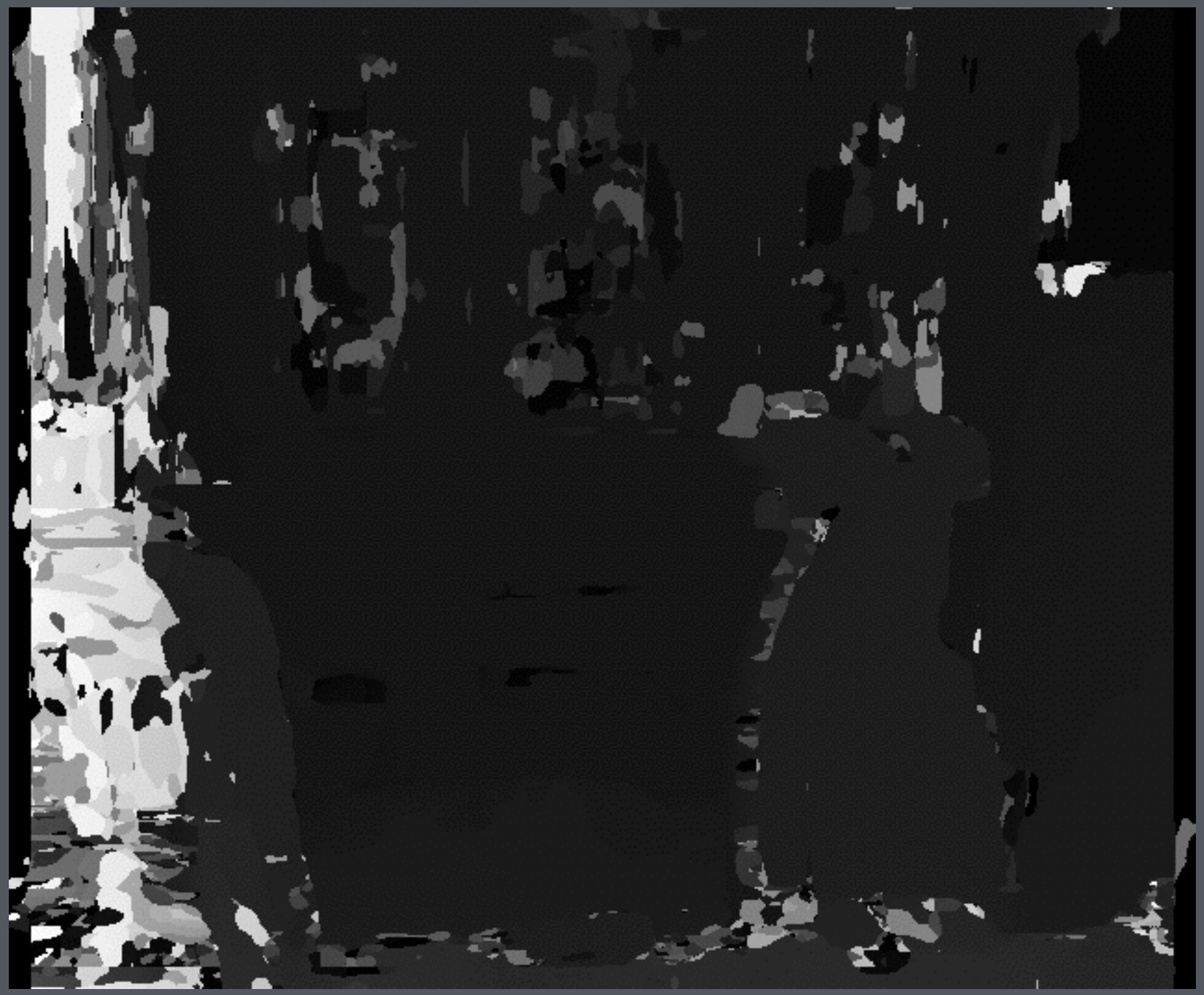
4-b-2

This version is bad. SSD performed considerably better for the noisy image. The edge is detected here, but the inner region is not at the correct depth, and there is a striation along the top and bottom of the offset region.

4-b-3

4-b-4

Unlike the SSD version normalized correlation worked perfectly with the contrast image.



5-a-1

5-a-2

5

Getting any good results in this image seemed very hard. The larger objects with repeated patterns like the laundry basket have extremely poor depth information. The objects in the foreground seemed ok, but not great. A larger window size seemed to do more than adjusting the filtering prior to processing.