Project 3A: Image Mosaic

Taylor Nelms and Nikhil Shenoy

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1 How to Run

You can run this project by executing "python mymosaic.py" from the command line with options that specify the images to be stitched. The script expects that the images being used for the mosaicing are in a directory one level higher than "mymosaic.py" and in a directory called "test_img". If you are in the same directory as "mymosaic.py", then the relative path would be "../test_img/1L.png". Place three images in that "test_img" directory. To do a nearest neighbors calculation, we used the KDTree from scipy.spatial.

We use the "argparse" module to handle various inputs. These are the available options:

- **-l**: Speficy the path to the left image.
- **-m**: Speficy the path to the middle image.
- **-r**: Speficy the path to the right image.

Please note that this project works for stitching strictly three images together.

2 Potential Packages to Install

- argparse
- scipy.spatial.KDTree

3 Image Outputs

3.1 Classroom

3.2 Street

Figure 1: ANMS for the left image

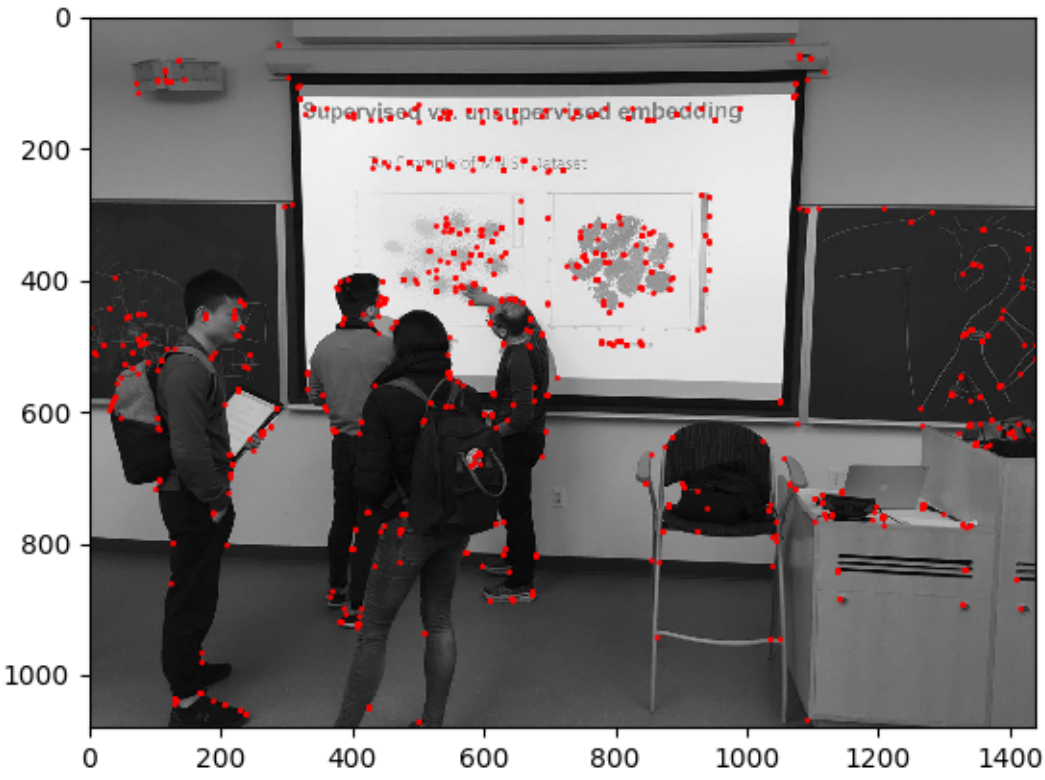

Figure 2: ANMS for the middle image

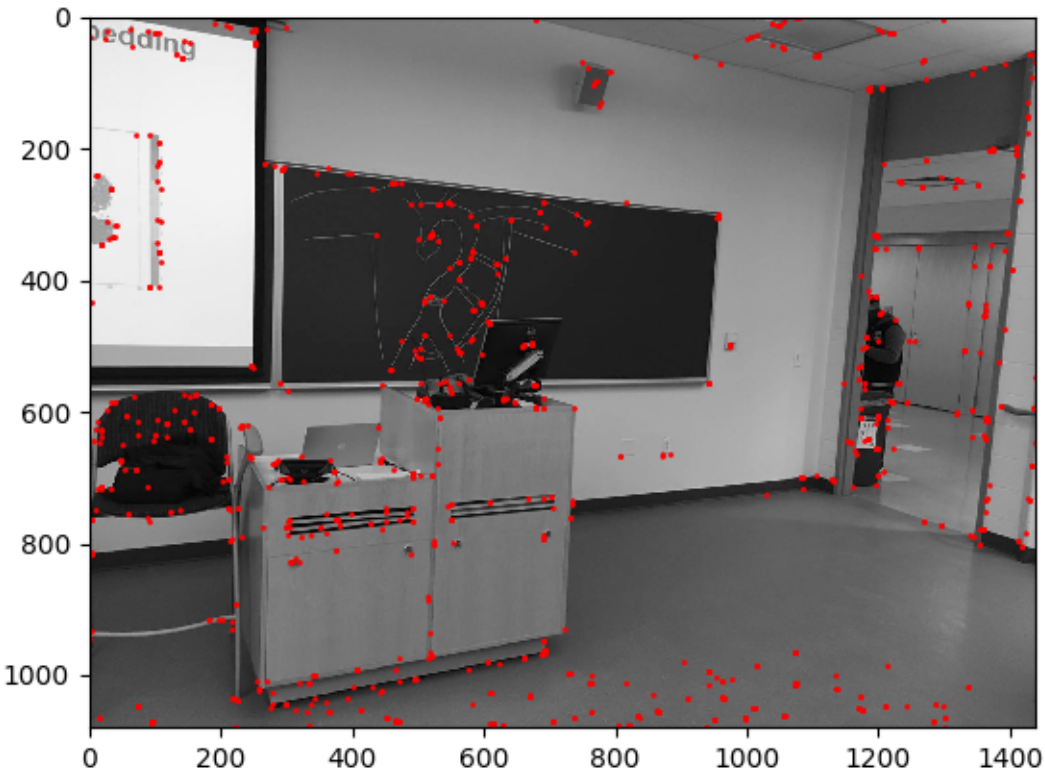

Figure 3: ANMS for the right image

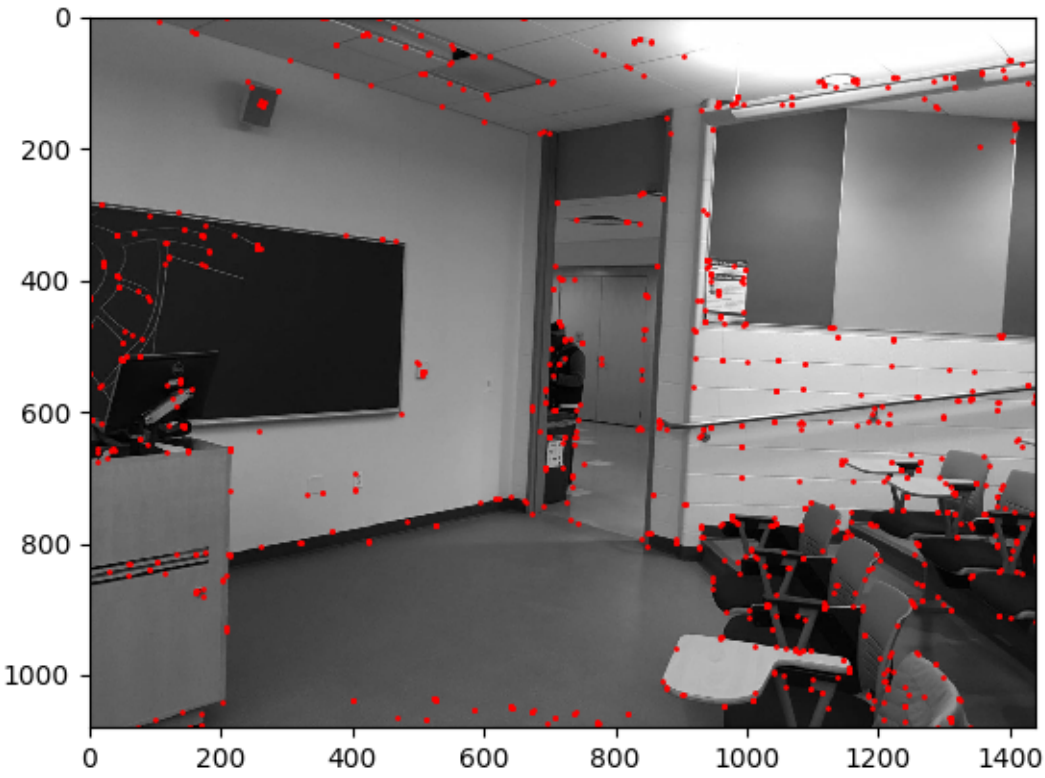

Figure 4: Post-RANSAC points using the left and middle images

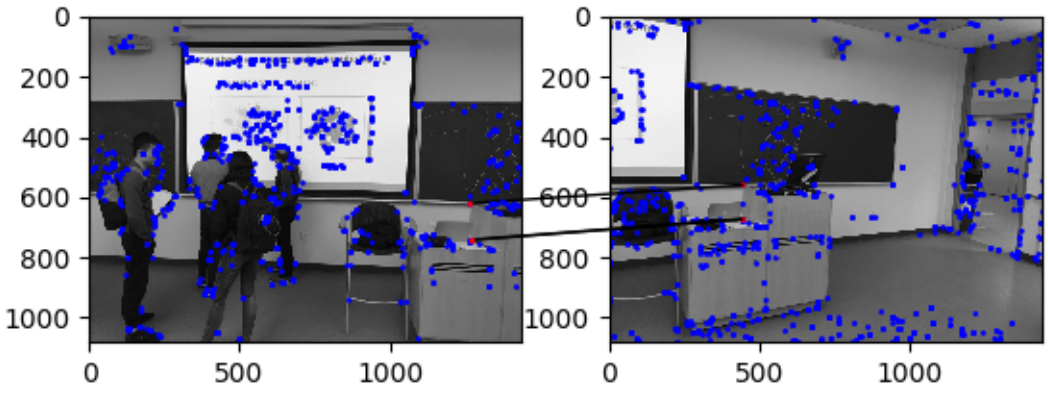

Figure 5: Post-RANSAC points using the middle and right images

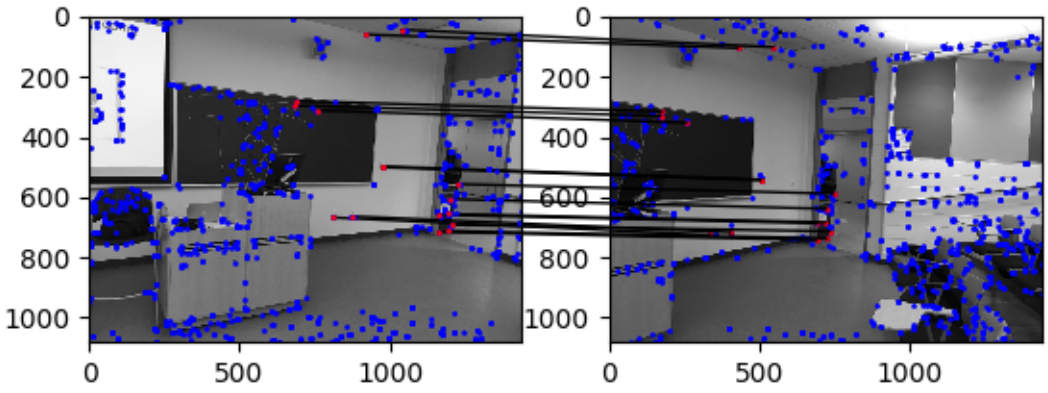

Figure 6: Final panorama

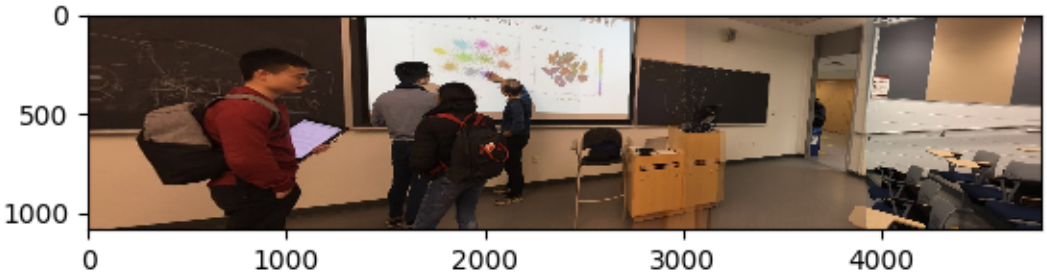

Figure 7: ANMS for the left image

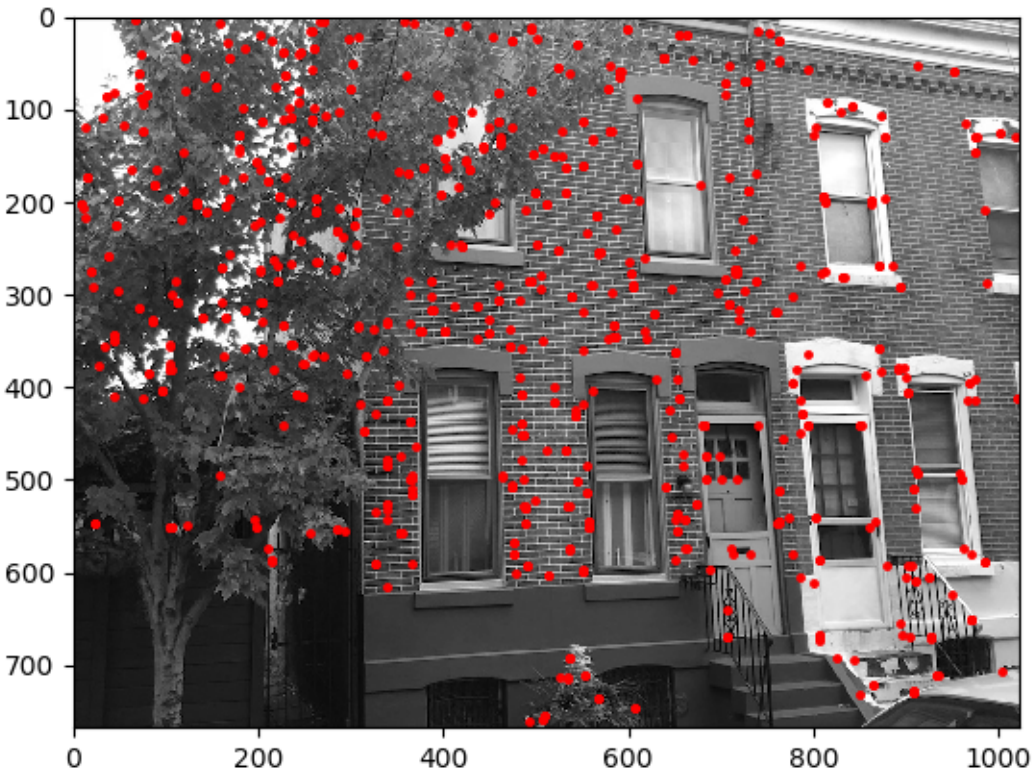

Figure 8: ANMS for the middle image

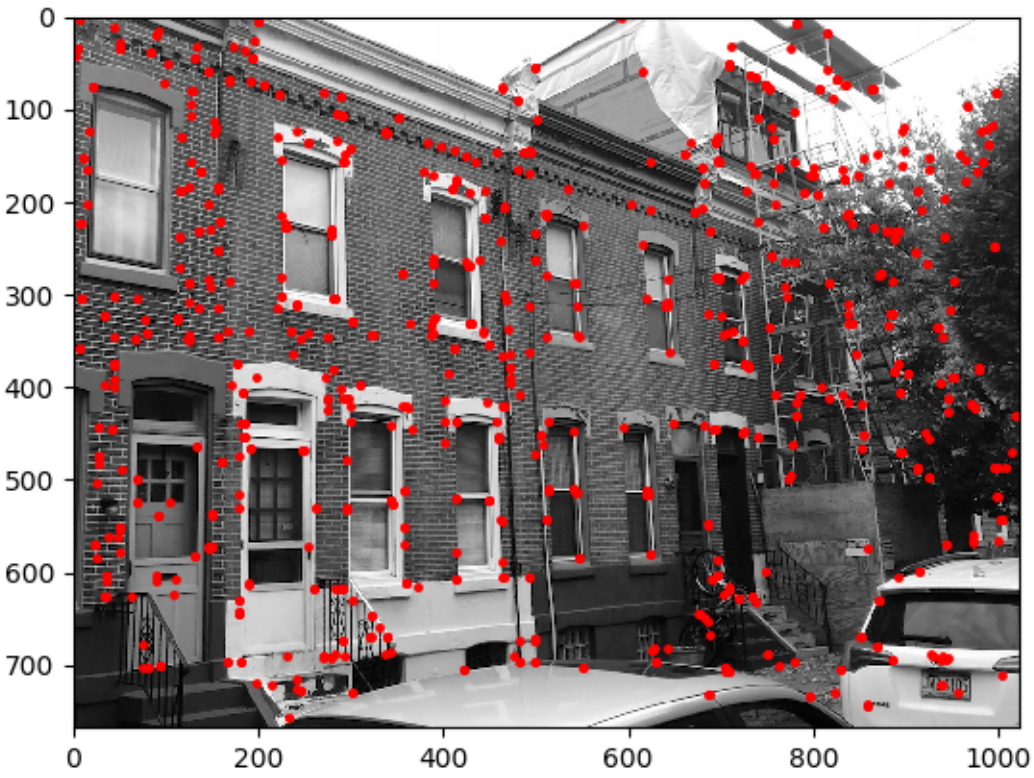

Figure 9: ANMS for the right image

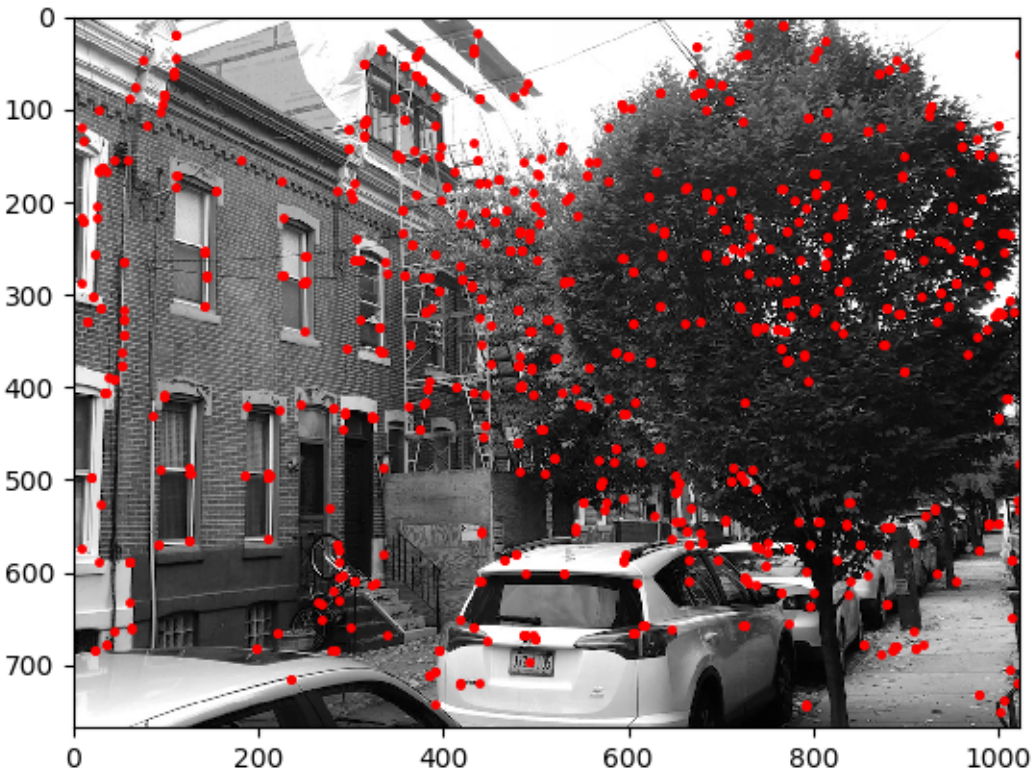

Figure 10: Post-RANSAC points using the left and middle images

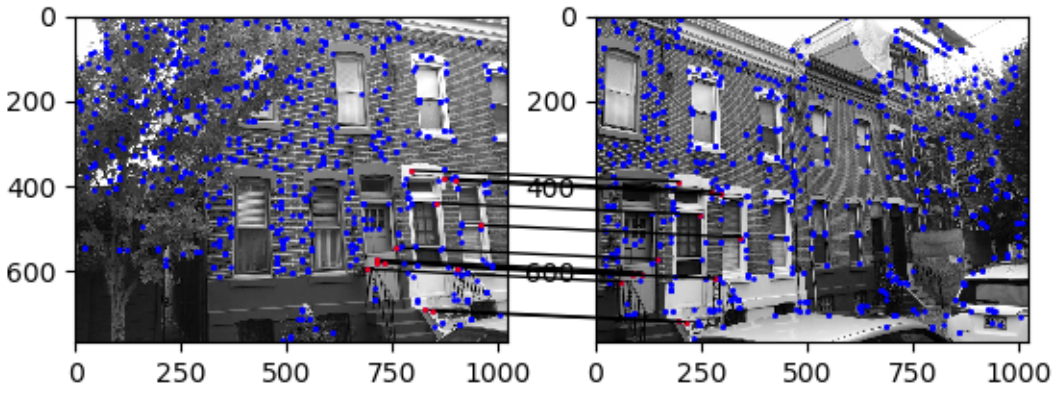

Figure 11: Post-RANSAC points using the middle and right images

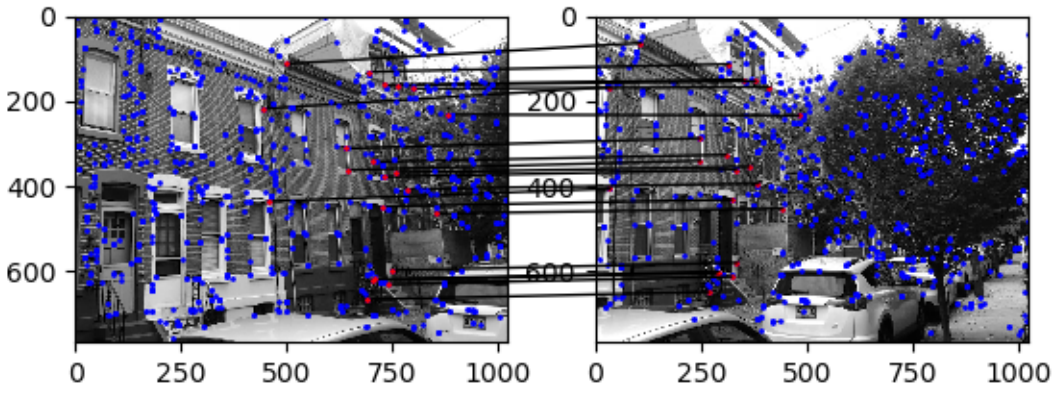

Figure 12: Final panorama