

COMP 590 HOMEWORK 3 RESULTS AND DISCUSSION

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Yosemite Panorama Result

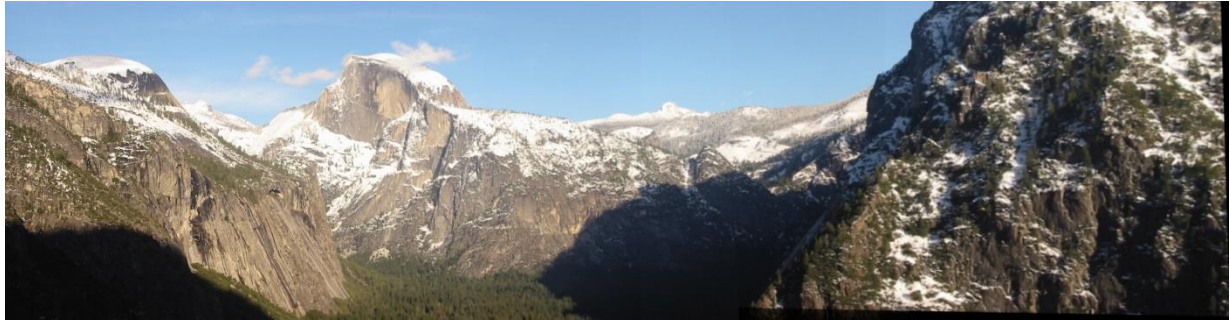


Figure 1

The panorama stitching pipeline works well on Yosemite sample images (Figure 1)

My Panorama Result

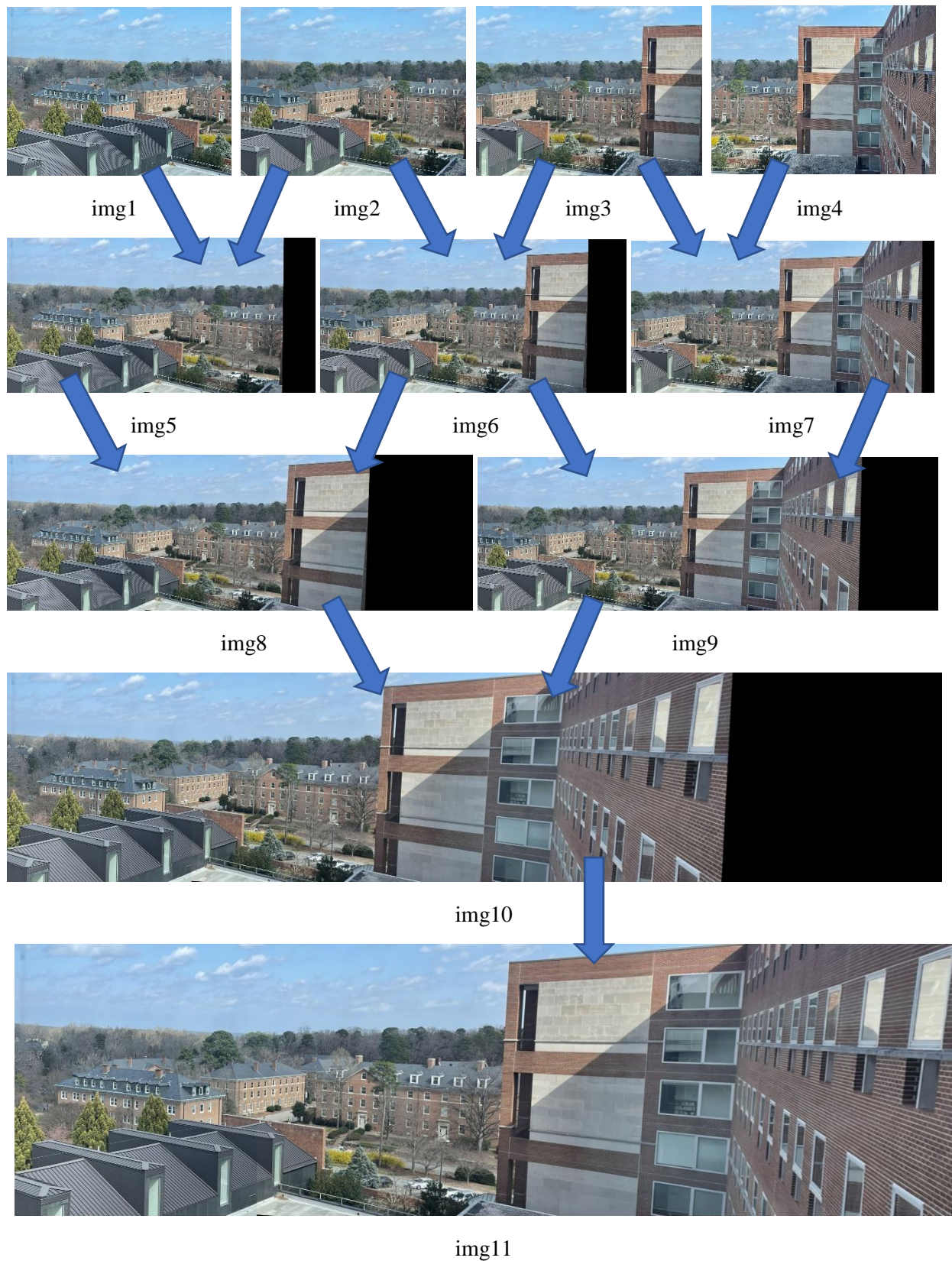


Figure 2: My panorama process and result, img1-4 are the input images, img11 is the final result

Discussion

1. Describe and discuss any issues that appear in your panorama.

In my panorama, the left part works well, while the right part was horizontally stretched.

2. Why do the issues appear?

As shown in Figure 2, img5, img6, img7 works just fine. The problem starts with img8 and img9, especially img8 where the bare wall was introduced.

Hypothetically, the issue appears because 1) there are few salient features on the bare wall for good alignment, so that features are matched incorrectly and then the image are warped incorrectly. 2) the right part is not in the same plane as the left, so homography fails.

3. Which of the steps above need to be improved to fix those?

I need more robust feature matching algorithm and a better image wrapping algorithm to fix the issue.