Programming Assignment 1 Part II

CIT-690 Computer Vision

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Note:

I’m using spyder in implementing this task

Part 1 : “Feature Extraction and Matching”

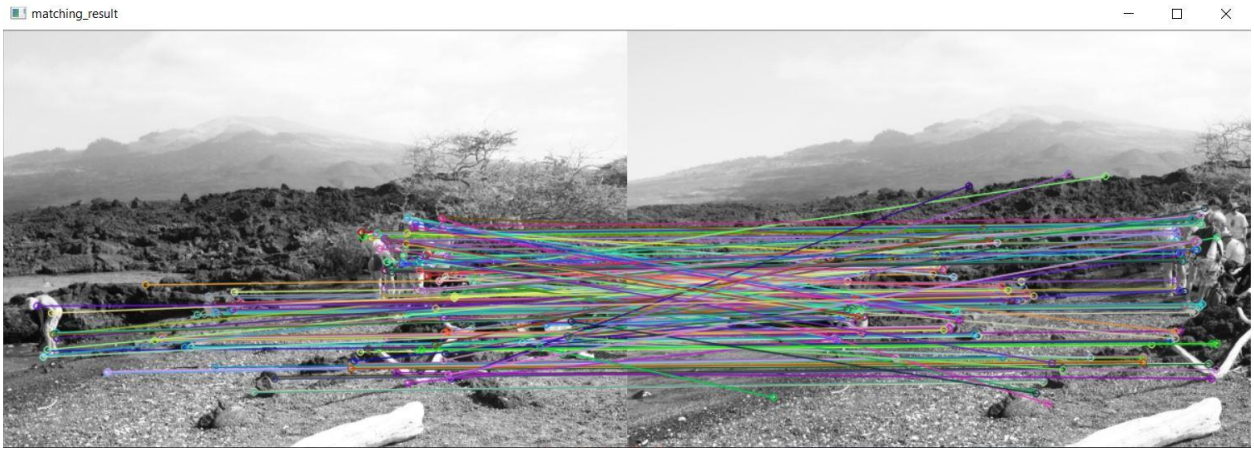
The file named “task_1.py”

There are two images used:

After using feature descriptor ORB and Matching using Brute Force Matching algorithm, These are the results:

1 / Features detected in each image

2/ Matching Result:



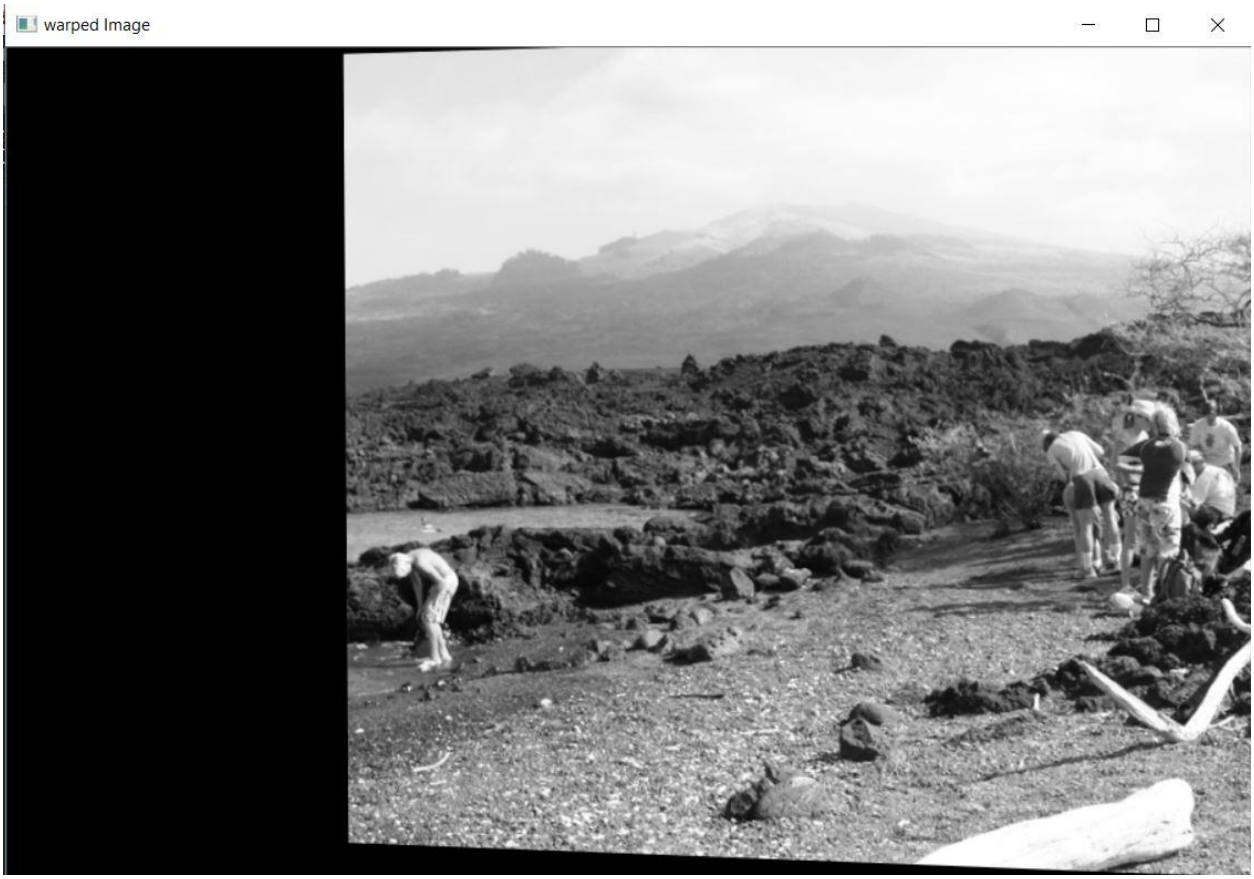
This is for part 1 in this assignment

Part2: “Compute Homography Overdetermined System”

There are two files: RANSAC.py and LMedS.py

If you want to run any of them, make sure to make task_1.py at the same path.

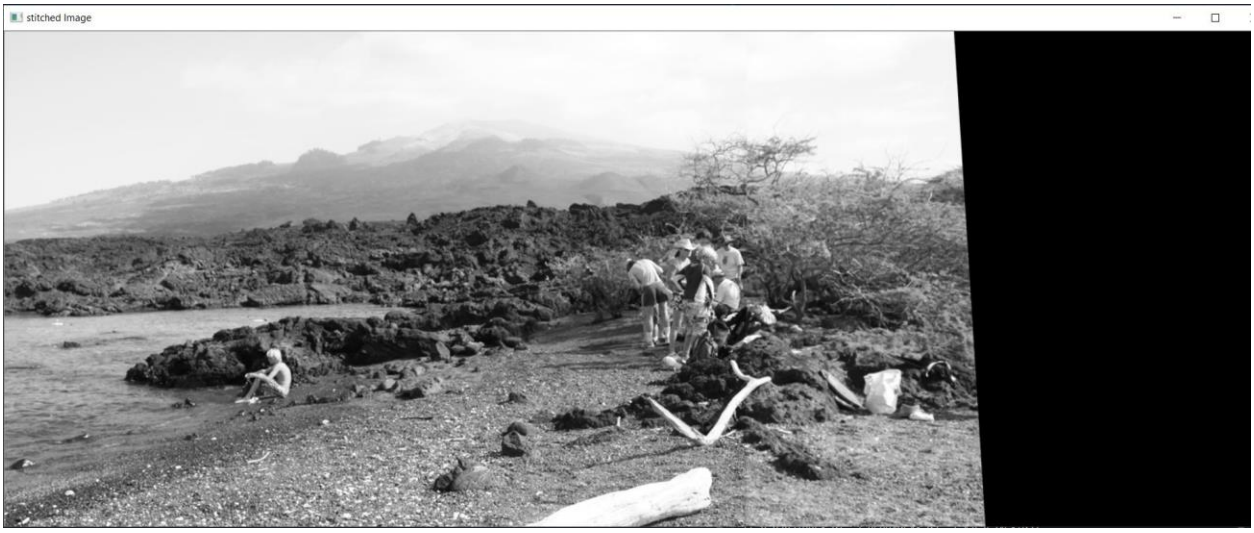
RANSAC output Warping:



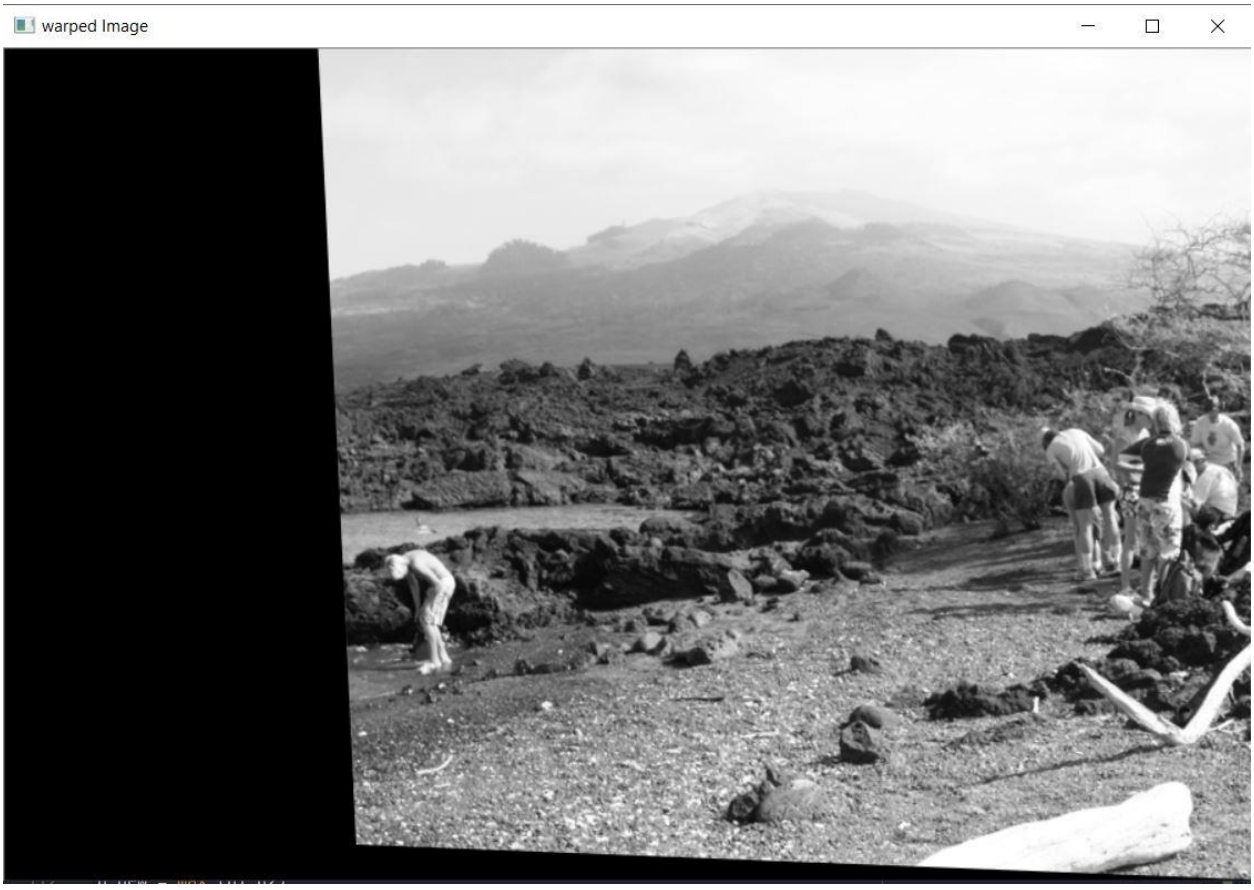
Ratio of inliers & best_H :

```
In [185]: runfile('E:/NU/Master/New/CIT690 Selected Topics in CIT(Computer
Vision)/Assignments/Assignment1/assignment1_partII_students/
assignment1_partII_students/partII/RANSAC.py', wdir='E:/NU/Master/New/CIT690
Selected Topics in CIT(Computer Vision)/Assignments/Assignment1/
assignment1_partII_students/assignment1_partII_students/partII')
Reloaded modules: task_1
The ratio is: 0.92 ACCEPTED
The final Homography is:
[[0.89 -0.01 163.51]
 [-0.03 0.93 1.10]
 [-0.00 -0.00 1.00]]
```

Stitching results by RANSAC:



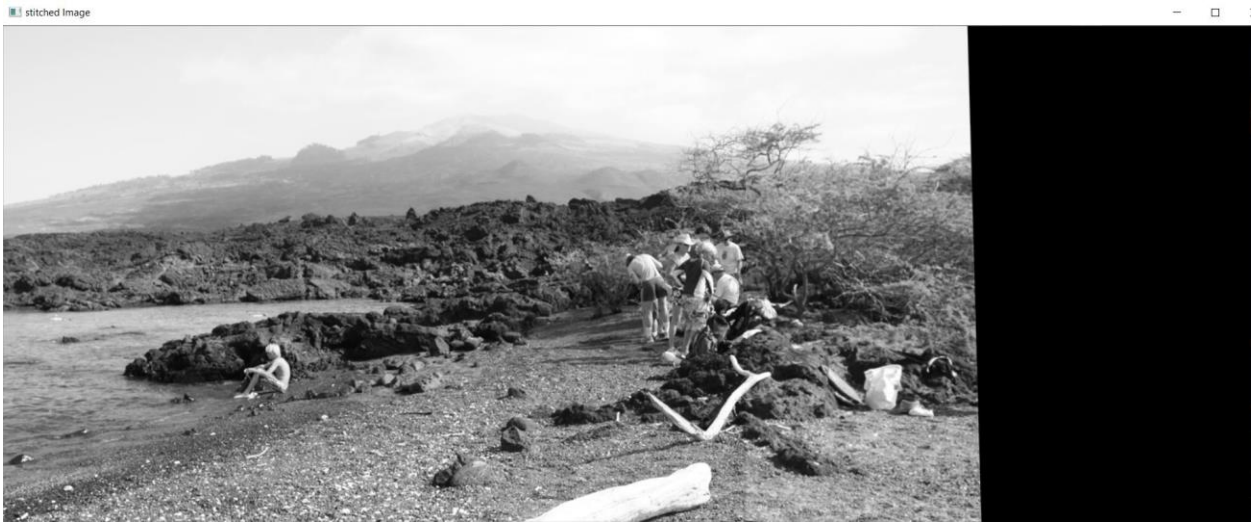
LMedS output warping:



H - NumPy object array

	0	1	2
0	0.943041	-0.00907437	158.65
1	-0.00671304	0.956222	-5.9544
2	-8.86856e-05	-6.02373e-05	1

Stitching results by LMedS:



Note:

I’m going to put all together in one folder and compress it so you can use it easily.