Project 5 CMPT 412

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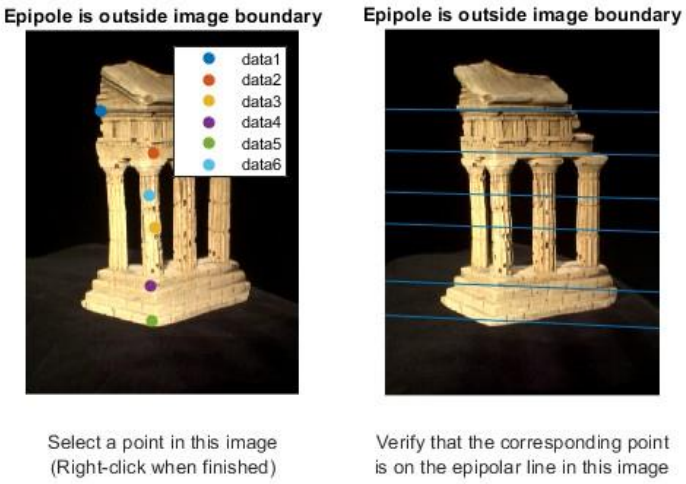
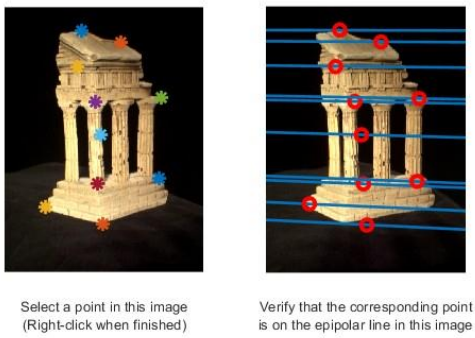
3.1.1

```
F =

    0.0000   -0.0000    0.0000
   -0.0000   -0.0000   -0.0005
   -0.0000    0.0005   -0.0018
```



3.1.2



- I calculated the similarity metric using Euclidean distance between the pixel intensities of the two patches around the keypoints in the images.
- The search for the corresponding point in image 2 is performed within a small range of +/- 10 pixels along the horizontal direction around the initial point. If the true correspondence is outside this range, it might lead to a mismatch.

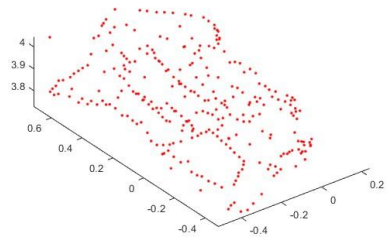
3.1.3

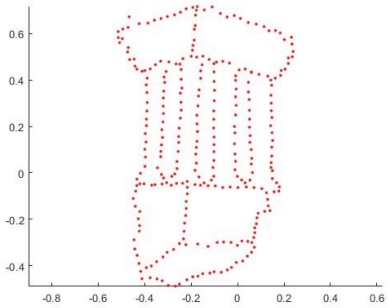
```
E =

    0.0044   -0.1543   -0.0002
   -0.0400   -0.0009   -0.7343
   -0.0207    0.7253   -0.0013
```

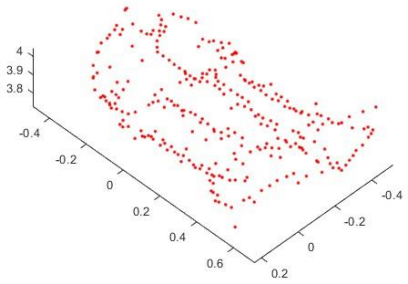
3.1.4

```
dist1 =

    0.0450


dist2 =

    0.0446
```

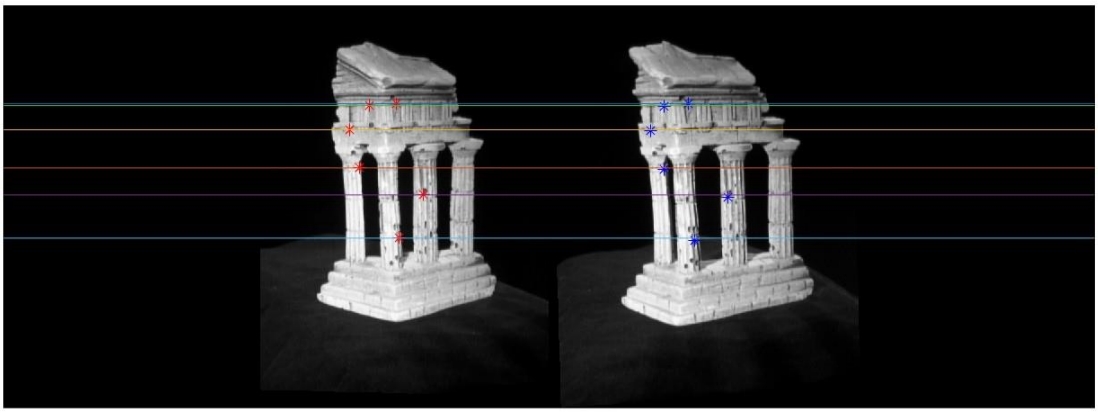
3.1.5



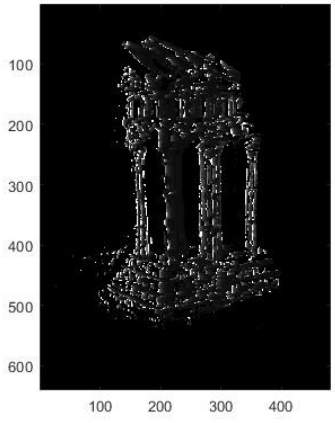


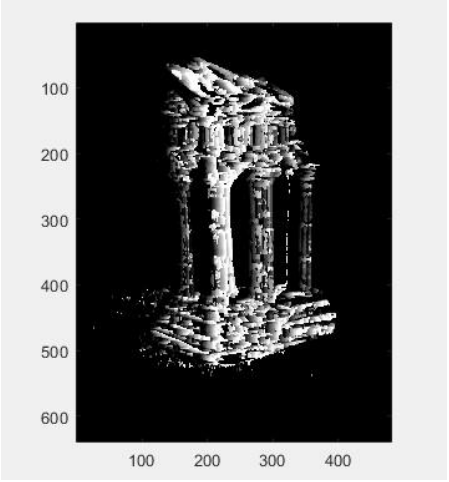


3.2.1

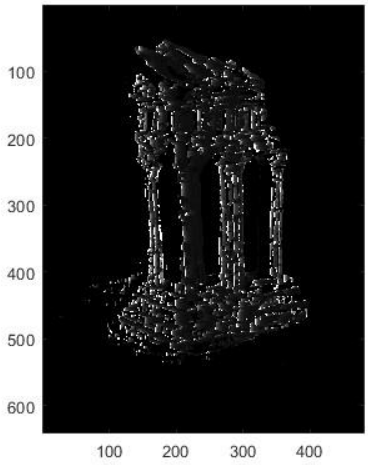


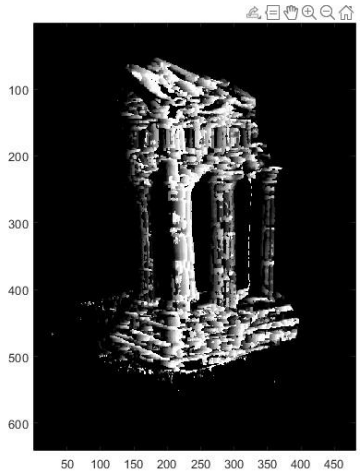
3.2.2


100
200
300
400
500
600
100
200
300
400


100
200
300
400
500
600
100
200
300
400

3.2.3





3.3.1

```
Reprojected Error with clean 2D points is 0.0000
Pose Error with clean 2D points is 0.0000
------------------------------
Reprojected Error with noisy 2D points is 14.7967
Pose Error with noisy 2D points is 0.6467
```

3.3.2

```
Intrinsic Error with clean 2D points is 0.0000
Rotation Error with clean 2D points is 0.0000
Translation Error with clean 2D points is 0.0000
------------------------------
Intrinsic Error with clean 2D points is 0.8419
Rotation Error with clean 2D points is 0.0755
Translation Error with clean 2D points is 0.1297
```