

Vision Aided Navigation 2022 - Exercise 1

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Git repository: https://github.cs.huji.ac.il/lasrychaya/slam_project.git

1.1 Detect and extract at least 500 key-points.

Image_0:



Image_1:



1.2 Calculate feature-descriptors for each key-point in both key-points lists.

Descriptor 0:

```
[ 49 133 101 237 20 7 79 127 84 98 234 70 243 97 184 96 88 174 22 174 249 184
125 31 225 174 161 4 121 170 240 184]
```

Descriptor 1:

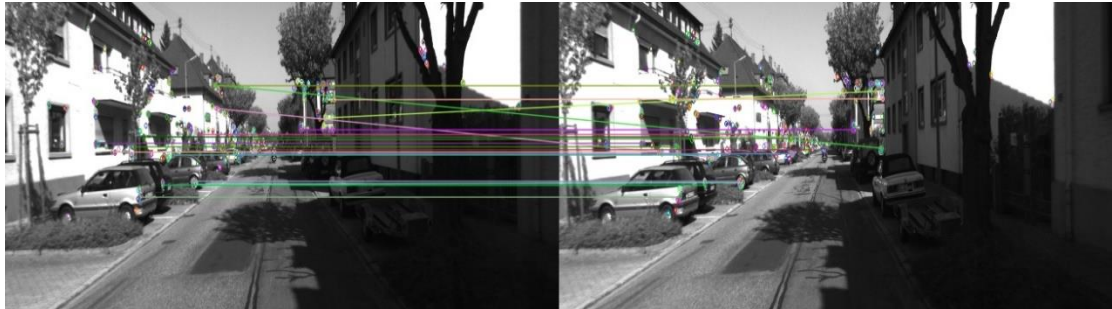
```
[ 56 183 122 106 210 43 85 89 33 5 237 57 71 99 10 16 62 154 197 32 90 35 64
23 211 197 32 95 243 194 198 131]
```

Printed:

```
descriptor 0: [ 49 133 101 237 20 7 79 127 84 98 234 70 243 97 184 96 88 174
22 174 249 184 125 31 225 174 161 4 121 170 240 184]
descriptor 1: [ 56 183 122 106 210 43 85 89 33 5 237 57 71 99 10 16 62 154
197 32 90 35 64 23 211 197 32 95 243 194 198 131]
```

1.3 Match the two descriptors list.

20 Matches:



1.4 Use significance test to reject matches.

- 20 “good” matches:



- We used 0.8 ratio as recommended in Wikipedia.
- 880 matches were discarded.
- A **correct** match that failed the significance test.

