Edge detection: active Gaussian thresholding

cv2.adaptiveThreshold(target\_gray, 255, cv2.ADAPTIVE\_THRESH\_GAUSSIAN\_C, cv2.THRESH\_BINARY, 11, 2)

Template matching method: correlation coefficient

result = cv2.matchTemplate(edged, target\_edge, cv2.TM\_CCOEFF)

Scaling numbers: 0.5, 2.0, 10

for scale in np.linspace(0.5, 2.0, 10)[::-1]:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 0.5, 2.0, 10 | **Waldo** | **Wenda** | **Wizard** | **Odlaw** | **Woof** |
| **City** | Found | Found | Found | Found | X |
| **Beach** | Odlaw | Found | Found | Found | X |
| **Zoo** | Found | Found | Found | Found | X |
| **Store** | Odlaw | Waldo | ? | Found | X |
| **Ski Resort** | Odlaw | Found | Found | Found | X |
| **Train Station** | Odlaw | Found | Found | Found | X |
| **Museum** | Found | Found | Found | Found | X |

These specs with 10 scales between 0.5 and 2.0 worked pretty well for Waldo’s friends, except for Woof. Searching for Waldo still finds Odlaw instead sometimes. The ‘?’ for the Wizard at the store threw an error (error: (-215:Assertion failed) !\_src.empty() in function 'cvtColor') not sure why.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 0.6, 1.2, 7 | **Waldo** | **Wenda** | **Wizard** | **Odlaw** | **Woof** |
| **City** | Found | Found | Found | Found | X |
| **Beach** | X | Found | X | X | X |
| **Zoo** | X | Found | Found | Found | X |
| **Store** |  |  |  |  | X |
| **Ski Resort** |  |  |  |  | X |
| **Train Station** |  |  |  |  | X |
| **Museum** |  |  |  |  | X |