task-9-01-mario

February 16, 2024

Task 9.1 | 65011428 Papinwich Asnapetch

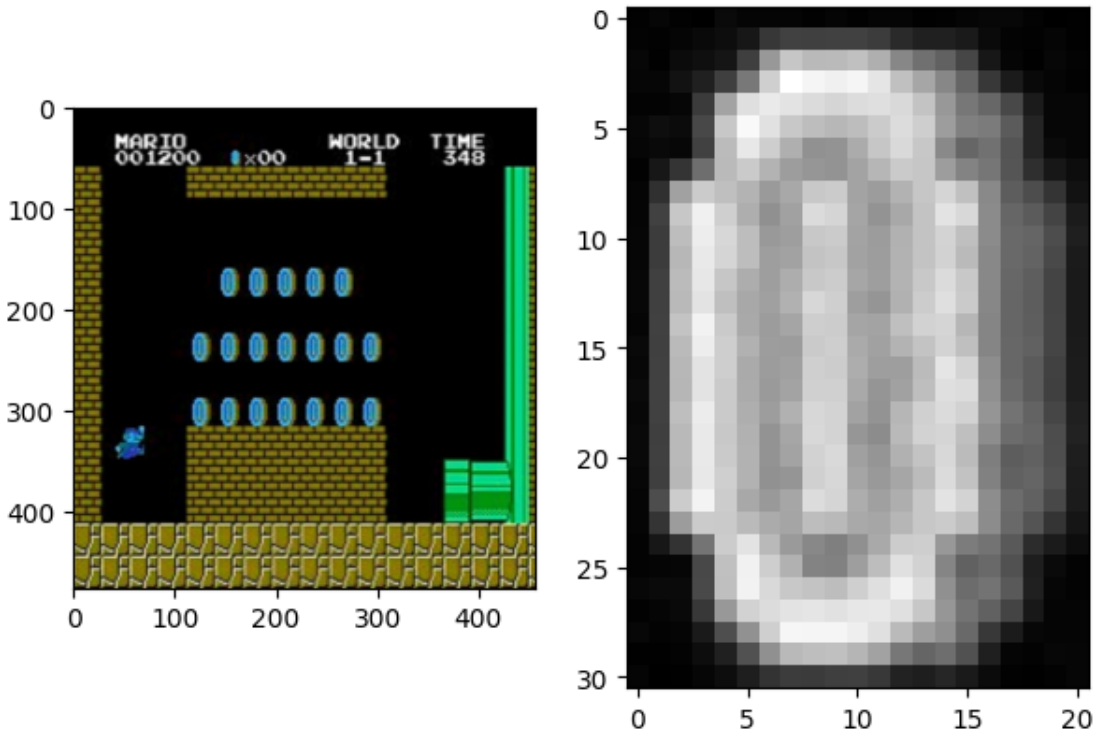
[53]:
```
import cv2
from matplotlib import pyplot as plt
import numpy as np
```

[54]:
```
# Load Image
img_tmp = cv2.imread('mario_coin.png')
img_tmp = cv2.cvtColor(img_tmp, cv2.COLOR_BGR2GRAY)

img = cv2.imread('mario.png')
img_gray = cv2.cvtColor(img, cv2.COLOR_BGR2GRAY)

plt.figure(figsize= (7, 7))
plt.subplot(1, 2, 1)
plt.imshow(img, cmap='gray')
plt.subplot(1, 2, 2)
plt.imshow(img_tmp, cmap='gray')
```

[54]:
```
<matplotlib.image.AxesImage at 0x1f447dbc520>
```



[55]:
```
h, w = img_tmp.shape
print(w, h)

# Apply template matching
method = cv2.TM_CCOEFF_NORMED
img_res = cv2.matchTemplate(img_gray, img_tmp, method)

# Filter value
thesh = 0.8
loc = np.where(img_res >= thesh)

# Draw rectangle
for pt in zip(*loc[::-1]):
    cv2.rectangle(img, pt, (pt[0] + w, pt[1] + h), (255, 0, 0), 2)

# Display
plt.imshow(img)
```

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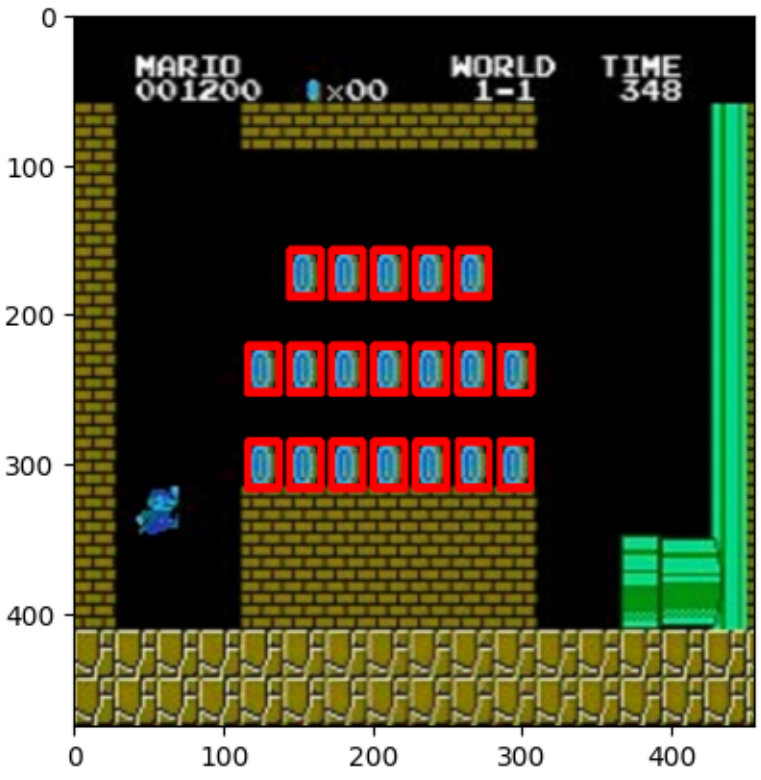
[55]:
```
<matplotlib.image.AxesImage at 0x1f447e4b6d0>
```


MARIO
001200
×00
WORLD
1-1
TIME
348
0
100
200
300
400
0
100
200
300
400