



OpenCV

OpenCV library in Python



python™

Why OpenCV?

OpenCV, or Open Source Computer Vision Library, is a widely used library for computer vision and image processing tasks.



foundational example!

If you're just starting with OpenCV, here's a simple example that reads an image, displays it, and waits for a key press before closing the window....with Explanation:)

Image Viewer and Saver with OpenCV



www.linkedin.com/in/tarun2k3

```
import cv2
import numpy as np
img = cv2.imread('image.jpeg', -1)

cv2.imshow('image', image)
cv2.waitKey(0)

if k == 27:
    cv2.destroyAllWindows()
elif k == ord("s"):
    cv2.imwrite('tarun_copy_image.png', img)
    cv2.destroyAllWindows()
```

OpenCV library in Python to read an image:



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```
import cv2
import numpy as np
img = cv2.imread('image.jpeg', -1)
```

```
cv2.IMREAD_COLOR (or 1)
cv2.IMREAD_GRAYSCALE (or 0)
cv2.IMREAD_UNCHANGED (or -1)
```

OpenCV library in Python to Display an image:



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```
import cv2  
import numpy as np  
cv2.imshow('image', image)
```

Display the image in a window
named 'image'

OpenCV library in Python to Waiting for a Key Event:



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```
import cv2  
import numpy as np  
k = cv2.waitKey(0)
```

Wait for a key event and store
the key code in variable 'k'

OpenCV library in Python to Checking the Key Pressed:



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```
if k == 27:  
    cv2.destroyAllWindows()  
elif k == ord("s"):
```

The variable `k` contains the key code of the key pressed. If it's the 'Esc' key (key code 27), the script closes the window

Save a copy of the image with a new name:



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```
cv2.imwrite('tarun_copy_image.png', img)
cv2.destroyAllWindows()
```

If it's the 's' key, it saves a copy of the image with a new name ('tarun_copy_image.png') using `cv2.imwrite()` and then closes the window.