Image :-

Black & white → 2D → (,)

Coloured image → 3D → (, ,)

openCV :-

It is a library of python designed to solve computer vision problems.

→ Developed by Intel, 1999

→ released at 2000.

→ Supports most all programming languages.

→ In openCV all images are converted to Numpy arrays.

```
! pip install opencv-python
import matplotlib.pyplot as plt
c_img = cv2.imread('cricket.jpg', 1)  → For coloured
g_img = cv2.imread('cricket.jpg', 0)  → For gray
```

Resizing image :

resize_img = cv_2.resize(c_img , (600, 600))

c_img = cv_2.cvtcolor(c_img , cv_2.COLOR_BGR2RGB)

plt.imshow(c_img)

↓ BGR to RGB

gray_img = cv_2.cvtColor(c_img , cv_2.COLOR_RGB2GRAY)

face cascade :

face_cascade = cv_2.CascadeClassifier(cv_2.data.

haarcascades + 'haarcascade_frontalface_default.xml')

faces = face_cascade.detectMultiScale(gray_img,

1.1, 4)

for x,y,w,h in faces:

img = cv_2.rectangle(img, (x,y), (x+w, y+h),

(0,255,0), 2)

img = cv_2.cvtcolor(img, cv_2.COLOR_BGR2RGB)

import cv2 as imshow

> cv2.imshow(img)