### 1.1.2 OpenCV image read and display

**1) Reading of images:**

img = cv2.imread('yahboom.jpg', 0) The first parameter is the path of the image, and the second parameter is how to read the image.

cv2.IMREAD_UNCHANGED: Keep the original format, can be represented by parameter -1;

cv2.IMREAD_COLOR: Reading pictures in grayscale, can be represented by parameter 0;

cv2.IMREAD_GRAYSCALE: Reading pictures in color mode, can be represented by 1, default value;

cv2.IMREAD_UNCHANGED: Read pictures and include its alpha channel,can be represented by 2.

**2) Displaying of image:**

Code:

```
#bgr8 to jpeg format

import enum
import cv2

def bgr8_to_jpeg(value, quality=75):
return bytes(cv2.imencode('.jpg', value)[1])
```

```
# The image component in jupyterLab shows the read image

import ipywidgets.widgets as widgets
image_widget = widgets.Image(format='jpg', width=800, height=800)
display(image_widget)

image_widget.value = bgr8_to_jpeg(img)
```