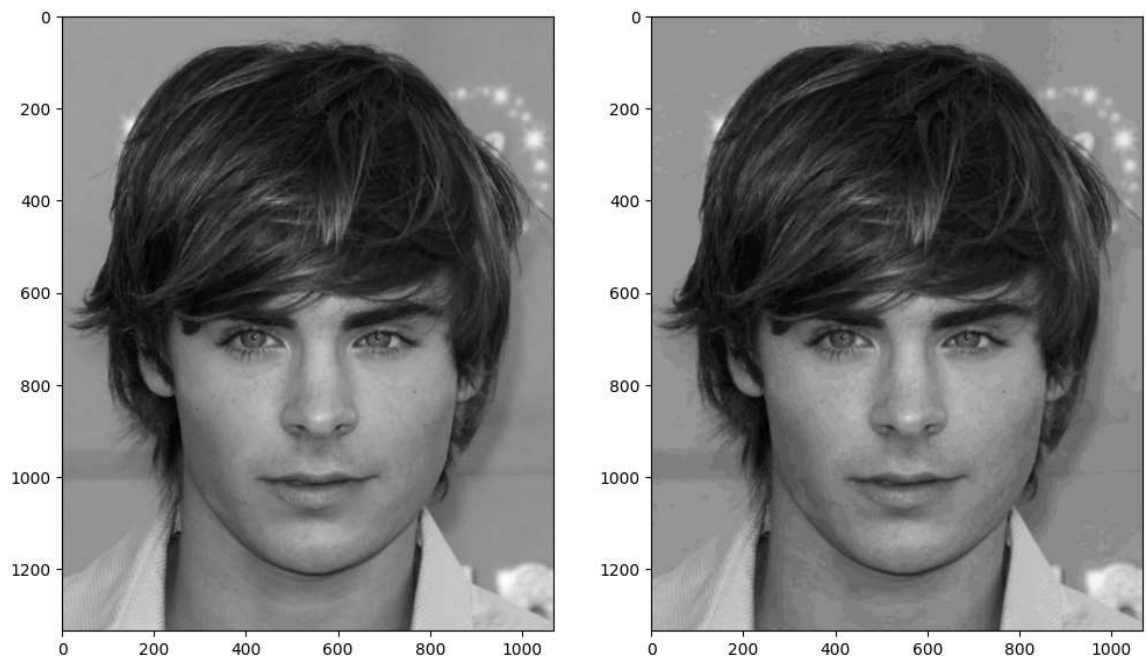


```
In [ ]: #Computing the Gaussian Kernel
import numpy as np
import cv2 as cv
import matplotlib.pyplot as plt
x,y = np.arange(-1, 2, 1),np.arange(-1, 2, 1)
YY, XX = np.meshgrid(x,y)
sigma = 1
g = np.exp(-(XX**2 + YY**2)/(2*sigma**2))
g/=np.sum(10*g)

im = cv.imread('images/zac.jpg', cv.IMREAD_GRAYSCALE)
assert im is not None

blurred = cv.filter2D(im, -1, g)

fig, ax = plt.subplots( 1,2, figsize= (12,24))
ax[0].imshow(im, cmap='gray')
ax[1].imshow(blurred, cmap = 'gray')
plt.show()
```



```
In [ ]: # Canny edge detector

import numpy as np
import cv2 as cv
import matplotlib.pyplot as plt
im = cv.imread('images/zac.jpg', cv.IMREAD_GRAYSCALE)
assert im is not None

edges = cv.Canny(im, 200, 50)

cv.namedWindow("Image", cv.WINDOW_AUTOSIZE)
cv.imshow("Image", im)
cv.waitKey(0)
cv.imshow("Image", edges)
cv.waitKey(0)
cv.destroyAllWindows
```

```
Out[ ]: <function destroyAllWindows>
```