**import** cv2

**import** matplotlib.pyplot **as** plt

**import** numpy **as** np

**from** skimage **import** exposure

*# IMAGE*

*#*

*# Import image.*

image = cv2.imread('fabio.JPG', 0)

*# Get image’s dimensions.*

width, height = image.shape

*# HISTOGRAM*

*#*

*# Create histogram of original image*

fabioHist = plt.hist(image)

*# Use same histogram axes every time, so you can compare!*

plt.axis([0, 255, 0, 350])

*# Save a histogram.*

plt.savefig('histogram,JPG', bbox\_inches='tight')

*# Clear the figure afterward (important)*

plt.clf()

*# CDF*

*#*

*# Get cdf from image.*

cdf, binCenters = exposure.cumulative\_distribution(image, maxIntensityDesired)

*# This helped me.*

binCenters = binCenters.tolist()

*# Plot the cdf; use same axes each time, so you can compare!*

cdf = plt.scatter(binCenters, cdf)

plt.axis([0, 255, 0, 1])

*# Save the cdf.*

plt.savefig('cdf.JPG', bbox\_inches='tight')

plt.clf()

*# Iterating over an image to edit it*

**for** i **in** range(width):

**for** j **in** range(height):

image[i][j] = 1