**Image to pencil sketch app:**

import cv2

import numpy as np

# Load an image from file

image = cv2.imread('input\_image.jpg')

# Convert the image to grayscale

gray\_image = cv2.cvtColor(image, cv2.COLOR\_BGR2GRAY)

# Invert the grayscale image

inverted\_gray\_image = cv2.bitwise\_not(gray\_image)

# Apply a Gaussian blur to the inverted image

blurred\_image = cv2.GaussianBlur(inverted\_gray\_image, (21, 21), sigmaX=0, sigmaY=0)

# Invert the blurred image

inverted\_blurred\_image = cv2.bitwise\_not(blurred\_image)

# Create the pencil sketch by blending the original image with the inverted blurred image

pencil\_sketch = cv2.divide(255 - inverted\_blurred\_image, 255, scale=256)

# Save the pencil sketch to a file

cv2.imwrite('pencil\_sketch.jpg', pencil\_sketch)

# Display the original image and pencil sketch

cv2.imshow('Original Image', image)

cv2.imshow('Pencil Sketch', pencil\_sketch)

cv2.waitKey(0)

cv2.destroyAllWindows()