import cv2

import numpy as np

from matplotlib import pyplot as plt

img = cv2.imread("C:/Users/DELL 3468/Desktop/TY Shit/Python/Image Restoration Tool/Girl 1.png", 0)

denoised\_gray = cv2.fastNlMeansDenoising(img, None, 5, 13)

height = np.size(img, 0)

width = np.size(img, 1)

mask = np.zeros([width, height])

th, mask = cv2.threshold(denoised\_gray, 250, 255, cv2.THRESH\_BINARY)

kernel = cv2.getStructuringElement(cv2.MORPH\_RECT, (6, 6))

morph\_mask = cv2.dilate(mask, kernel, None, (2, 2), iterations=4)

result = cv2.inpaint(denoised\_gray, morph\_mask, 7, cv2.INPAINT\_TELEA)

th, mask = cv2.threshold(denoised\_gray, 210, 255, cv2.THRESH\_BINARY)

kernel = cv2.getStructuringElement(cv2.MORPH\_RECT, (6, 6))

morph\_mask = cv2.dilate(mask, kernel, None, (2, 2), iterations=4)

result = cv2.inpaint(denoised\_gray, morph\_mask, 7, cv2.INPAINT\_TELEA)

result = cv2.medianBlur(result, 3, None)

output = [img, result]

titles = ['Damaged Image', 'Result']

for i in range(2):

plt.subplot(1, 2, i+1)

plt.imshow(output[i], cmap='gray')

plt.title(titles[i])

plt.xticks([])

plt.yticks([])

plt.show()