

LetsGrowMore Data Science Internship

Beginner Level - TASK 4

Image to Pencil Sketch with Python

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```
In [13]: #Importing Libraries
import cv2
import matplotlib.pyplot as plt
```

Read the image in RBG format

```
In [14]: image = cv2.imread("CAR.jpg")
cv2.imshow("Original image of the Car", image)
cv2.waitKey(0)
```

Out[14]: -1

Converting the image to GrayScale Image

```
In [15]: Grayscale_image = cv2.cvtColor(image, cv2.COLOR_BGR2GRAY)
cv2.imshow("CAR", Grayscale_image)
cv2.waitKey()
```

Out[15]: -1

Inversion of the Grayscale image

```
In [16]: Inverted_image = 255 - Grayscale_image
cv2.imshow("Inverted GreyScale Car", Inverted_image)
cv2.waitKey()
```

Out[16]: -1

Blurring the Inverted Grayscale

```
In [17]: blurred = cv2.GaussianBlur(Inverted_image, (51, 51), 0)
cv2.imshow("Blur InvertedGreyscale",blurred)
cv2.waitKey(0)
```

Out[17]: -1

Inverting the blurred Inverted Grayscale

```
In [18]: Inverted_blurred = 255 - blurred
```

```
cv2.imshow("Inverting the Blur Inverted Greyscale", Inverted_image)  
cv2.waitKey(0)
```

Out[18]: -1

Pencil sketch

Done by mixing the grayscale image with the inverted blurry image.

```
In [19]: pencil_sketch = cv2.divide(Grayscale_image, Inverted_blurred, scale=256)  
cv2.imshow("Sketch", pencil_sketch)  
cv2.waitKey(0)
```

Out[19]: -1

Displaying both the original image and the pencil sketch

```
In [20]: cv2.imshow("Original Image of Car", image)  
cv2.imshow("pencil sketch of Car", pencil_sketch)  
cv2.waitKey(0)
```

Out[20]: -1

In []: