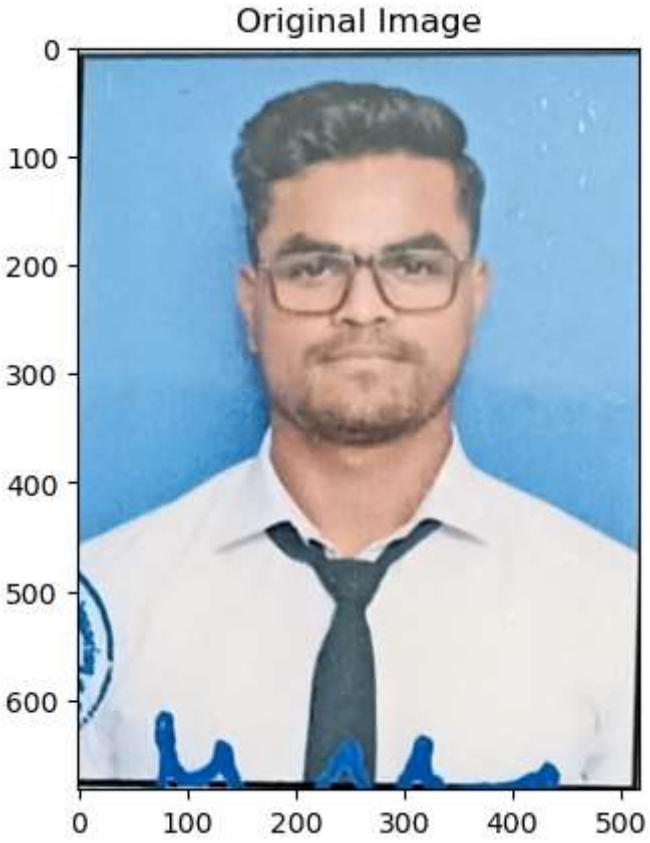
In [1]:
```
import cv2
import numpy as np
import matplotlib.pyplot as plt
```

Original image

In [2]:
```
img = cv2.imread("MyPhoto.jpg")
img = cv2.cvtColor(img, cv2.COLOR_BGR2RGB)
```

In [3]:
```
plt.imshow(img)
plt.title("Original Image")
plt.show()
```

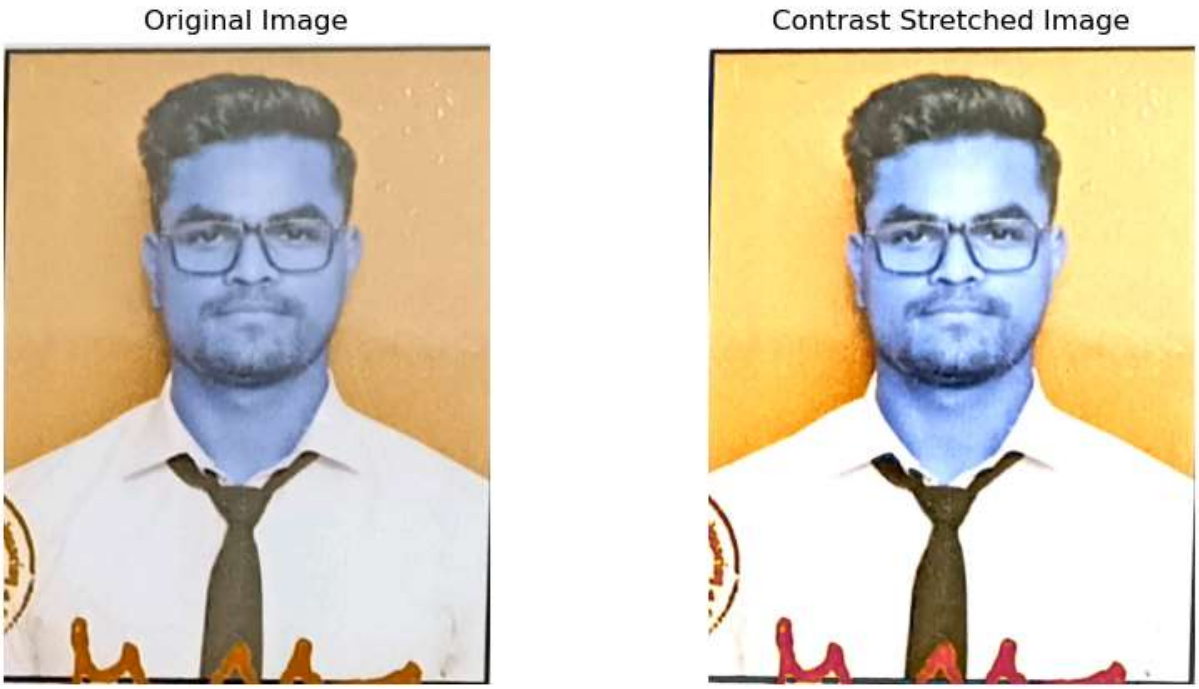


Contrast stretching

In [4]:
```
new_min_val = 50
new_max_val = 200

contrast_stretched = cv2.convertScaleAbs(img, alpha=255/(new_max_val-new_min_val), be
```

In [5]:
```
fig, axes = plt.subplots(1, 2, figsize=(10, 5))
axes[0].imshow(cv2.cvtColor(img, cv2.COLOR_BGR2RGB), cmap='gray')
axes[0].set_title('Original Image')
```

```
axes[0].axis('off')

axes[1].imshow(cv2.cvtColor(contrast_stretched, cv2.COLOR_BGR2RGB), cmap='gray')
axes[1].set_title('Contrast Stretched Image')
axes[1].axis('off')

plt.show()
```



Intensity level slicing

In [8]:
```
gray_img = cv2.imread("MyPhoto.jpg", 0)
row, column = gray_img.shape
result_img = np.zeros((row,column),dtype = 'uint8')

min_range = 40
max_range = 90

for i in range(row):
    for j in range(column):
        if gray_img[i,j] > min_range and gray_img[i,j] < max_range:
            result_img[i,j] = 255
        else:
            result_img[i,j] = 0
```

In [9]:
```
fig, axes = plt.subplots(1, 2, figsize=(10, 5))
axes[0].imshow(gray_img, cmap='gray')
axes[0].set_title('Original Image')
axes[0].axis('off')

axes[1].imshow(result_img, cmap='gray')
axes[1].set_title('Intensity level Sliced Image')
axes[1].axis('off')
```

```
plt.show()
```