Assignment #1

(LO 1)

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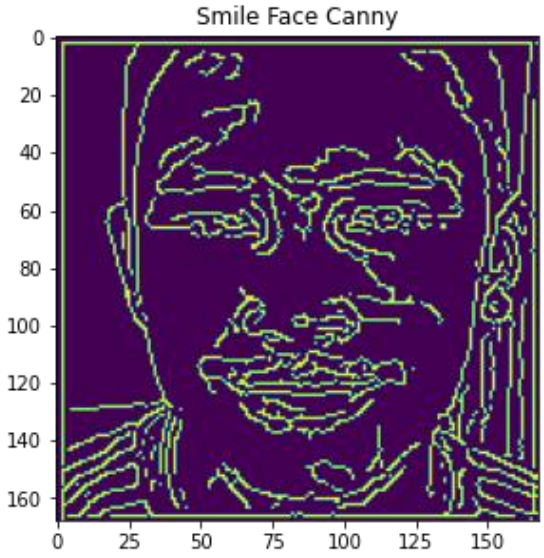
1) By using google colab code to access your webcam, capture three different facial expressions of yourself.

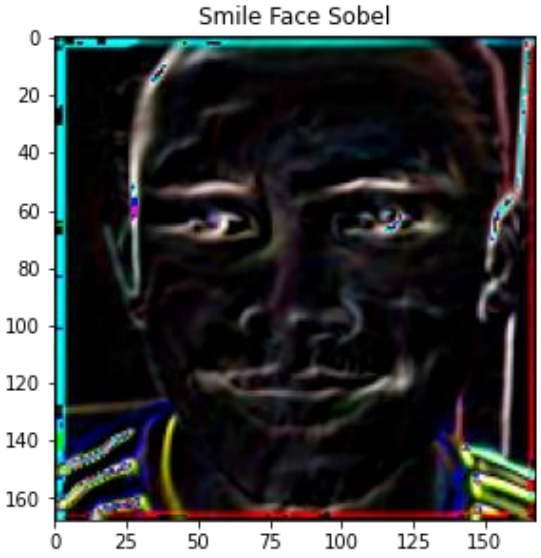
 filename = ‘Smile.jpeg’

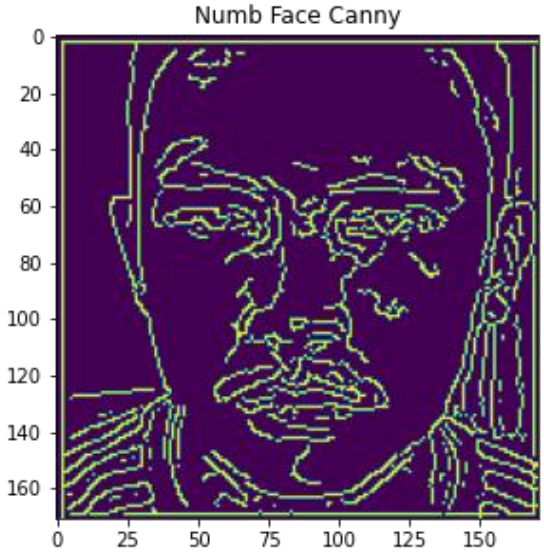
 filename = ‘Numb.jpeg’

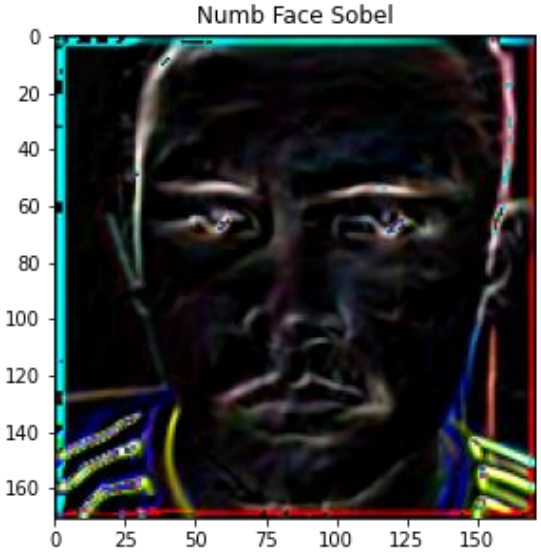
 filename = ‘Sad.jpeg’

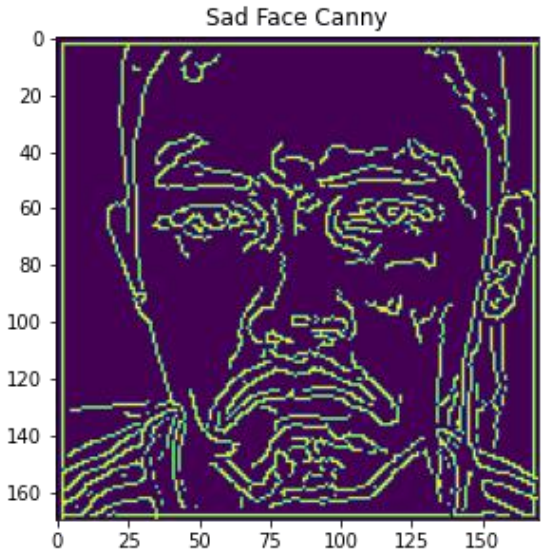
A) Apply both Canny Edge Detection and Sobel Edge Detection to only the face area of the image using a suitable threshold value. (5 Marks)

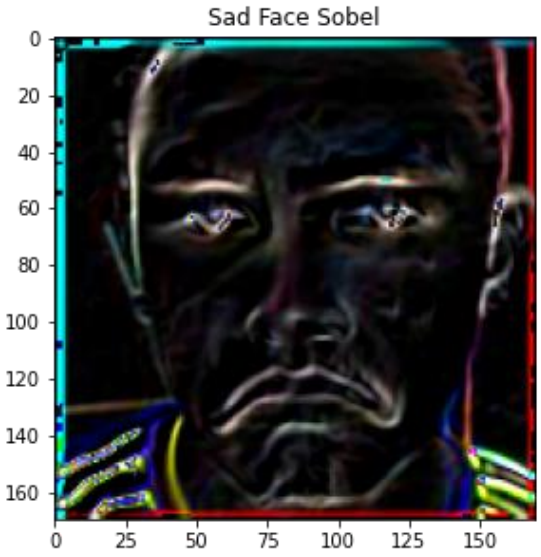




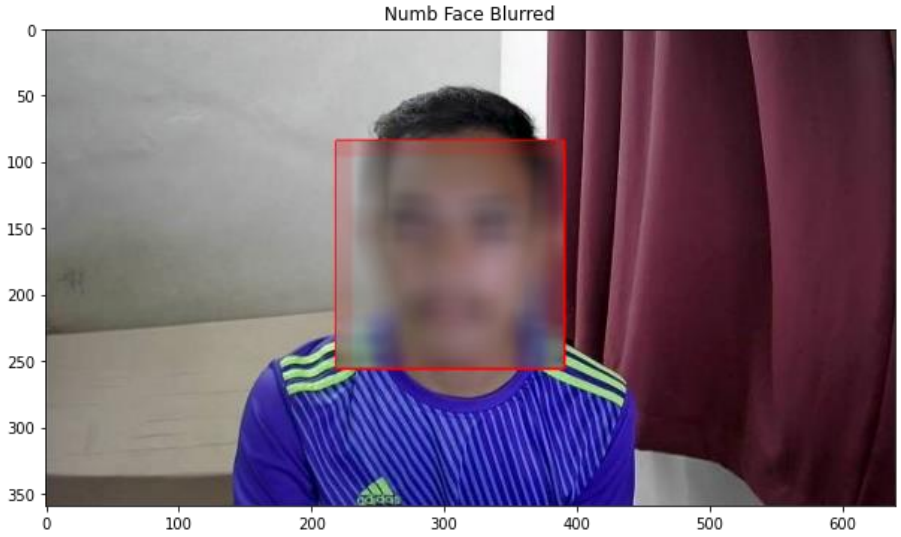




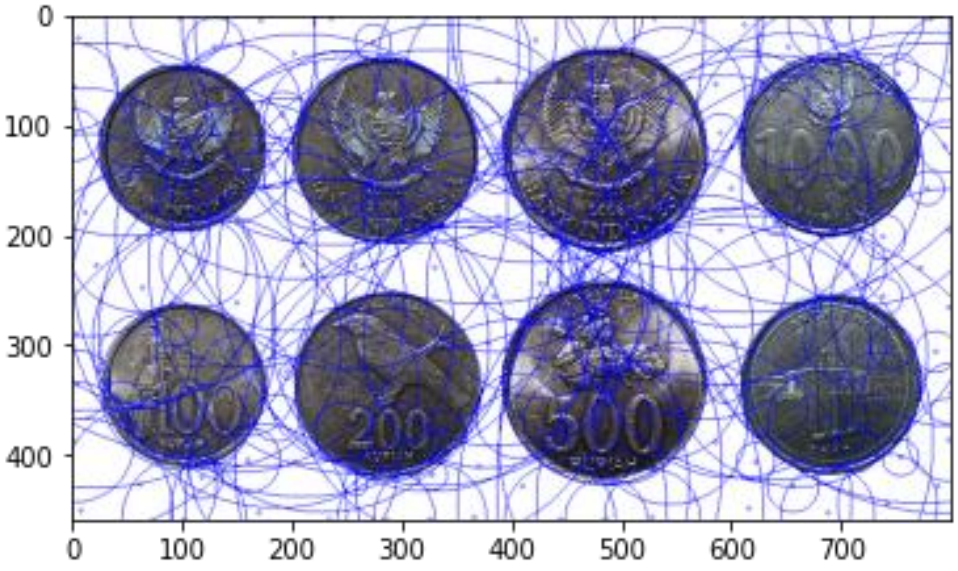




B) Perform blurring of only faces in those images. (5 Marks)



C) Calculating the number of coins in an image using contours. (5 Marks)



2) Instructions for Submission

A) Your codes should be shared on Github. A separate word file should be prepared with the answers to these questions (output from codes, explanations where deemed necessary,etc) and also Github links for the codes. This separate word file should be submitted to the Microsoft Teams link. You will need a Github account for this purpose.

3) Opening a Github account

A) If you do not have a Github account yet, follow the Sign Up instructions on this link: https://github.com/
B) The Github Repository for the assignment submissions is: https://github.com/ahmadjazlan/KPT-Machine-Learning-Assignments
C) Upload your codes to the following Github Repository by following this example: https://docs.github.com/en/repositories/working-with-files/managing-files/adding-a-file-to-a-repository

4) Microsoft Teams link (Submit your word file under Assignments -> Assignment No. 1:

https://teams.microsoft.com/l/channel/19%3a1P9CUqubyrLmRsYcZ_SUFoP_75nAetpx_lD5lJr7ii81%40thread.tacv2/General?groupId=35c5bdf6-6b79-4b23-86f0-197fc94f6513&tenantId=18ce76f6-99f4-457f-9f62-acd65d9b9777