Virtual Dressing Room – OpenCV

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# Introduction

This documentation will describe the solution of virtual dressing room. Virtual dressing room is an application that enable the user to try out the clothes without buying the clothes in reality. OpenCV is a library that mainly used for image processing. In this project, OpenCV will use to process the video image from webcam or camera, then adding the new cloth by detect the upper part of body.

# Requirement to run this project

* Python3
* OpenCV 4.1
* Face trained file - haarcascade\_frontalface\_alt.xml
* Clothes image

# Methodology

The work mostly done by the source code. The idea to construct the algorithm as below:

1. Open camera/webcam to take video.
2. Open the face trained file to detect user’s face.
3. Open the clothes image file.
4. Get rid of the background of clothes image file.
5. Position the upper body part based on face position.
6. Paste the clothes image on the video.

# How to run the code?

You will have file structure as below:

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* \_pycache\_
* data
  + haarcascades (store the face trained file)
    - haarcascade\_frontalface\_alt.xml
* img (store the clothes image)
  + dress\_1.png
  + shirt\_1.png
  + tshirt\_1.png
* detection.py
* main.py (main program)
* readme.txt

Run main.py to see the result.

# Result