**Segmentation**

1. **Pre-requisites**

Language used – Python

* Install Python (Download Anaconda for better ease of use)
  + Python Version - 3.6.4
* Install OpenCV for python – (pip install opencv-python)
  + OpenCV python Version - 3.4.3

1. **Running the application**
   * Run - python SkinSegmentor.py <image\_folder\_path>
   * The application will display 3 plots – Original Image, Binary mask, Binary mask applied on original image
2. Implementation Details
   * Approach1 : Color space Thresholding
     + HSV color space : Skin values in HSV based on some papers and some experiments : 0 <H <120, 65<S (converted from 0-1) <150
     + YCbCR color space : Skin values in

133< Cb < 173, 77 < Cr < 127

* + - Merging both the masks
  + Approach2 : Watershed Algorithm - Using Approach1 to dynamically create markers for foreground and background for Watershed segmentation