Machine Vision **Assignment #6** **Spring 2024**

You are given a dataset of images. Write a program to implement a Bayesian classifier to classify each pixel as skin or non-skin.

Please note the following:

1) Notice the training images in the train folder and the test images in the test folder.
2) Use color information as a feature. **Use the YCbCr color space. It works much better than other spaces.** Ignore the Y channel (intensity information), and estimate the pdfs **using a 2D histogram built from Cb and Cr values**.
3) **Do not use any predefined Bayesian classifier library**. You have to build your own classifier.
4) Compute the accuracies for each individual class (skin/non-skin) and the overall accuracy. Do this for both training and testing data.

Sample results that I got:

Image	Ground truth (1 → skin, 0 → non-skin)	Result