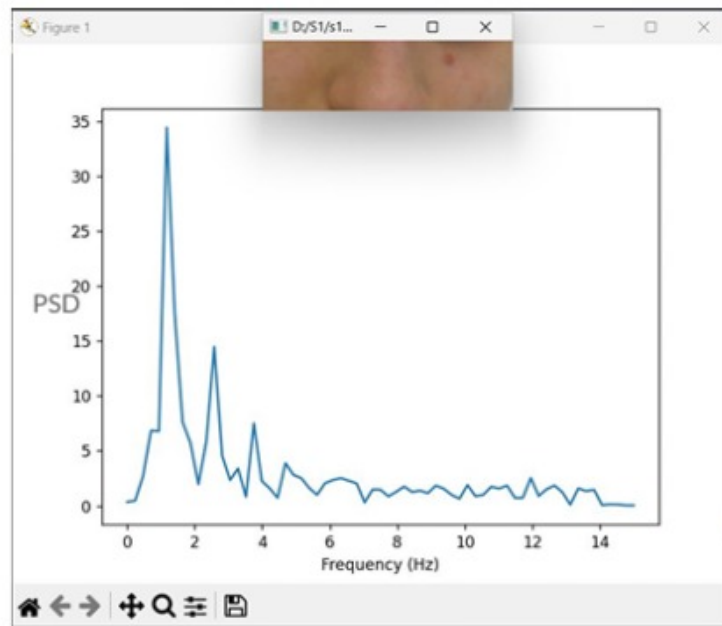
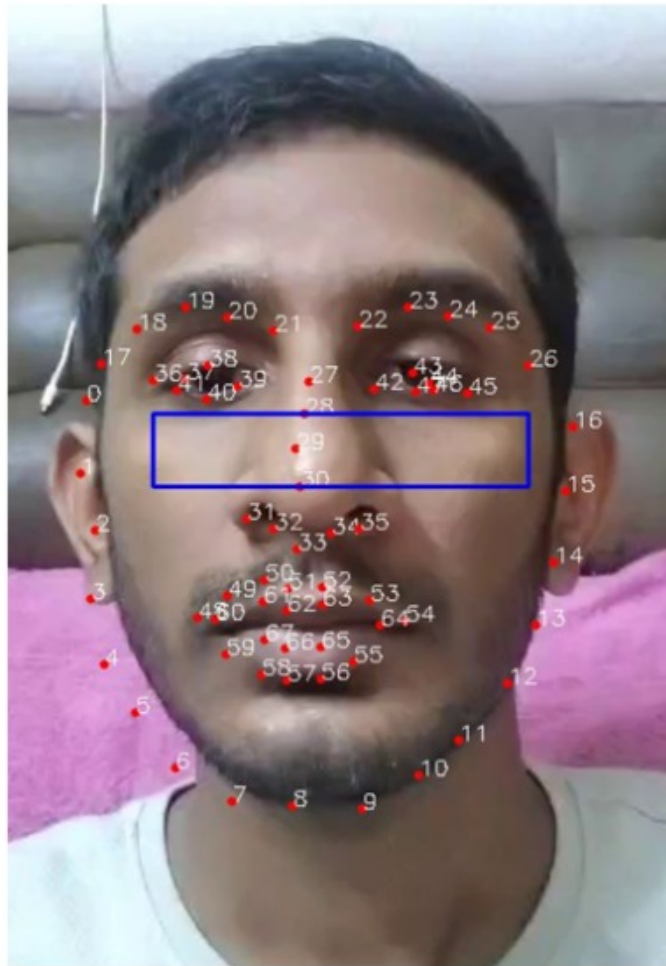
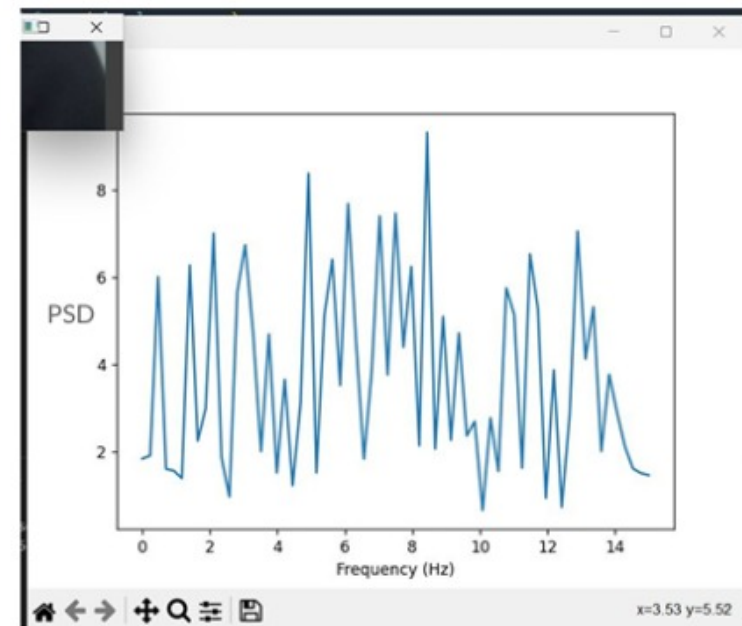


ROI : Facial Landmarks

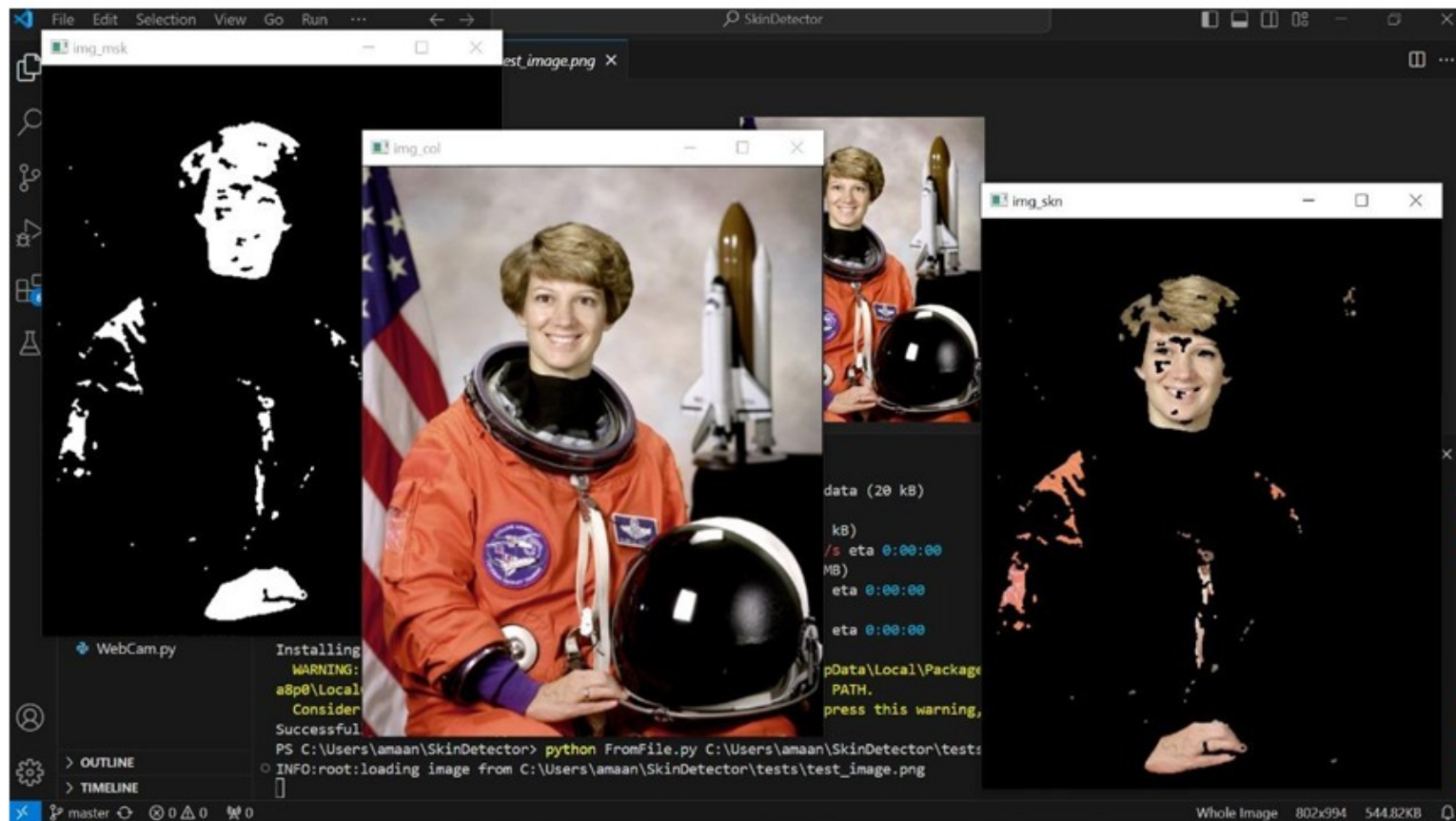


ROI



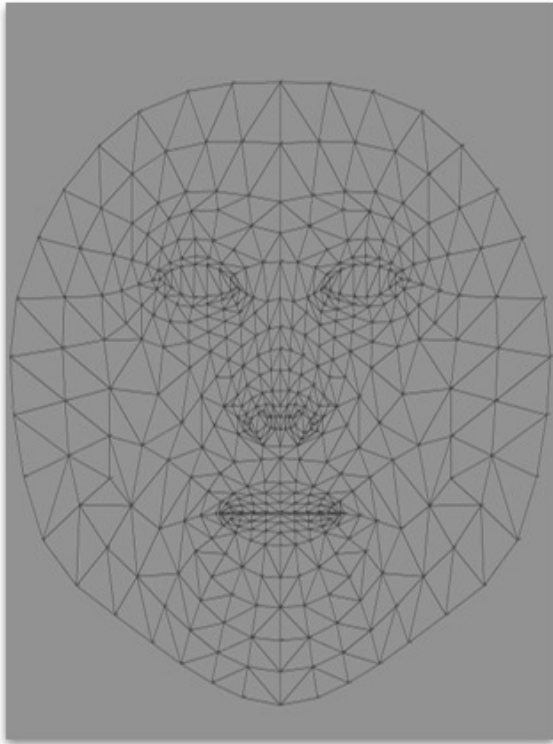
Background

Skin Segmentation



Skin segmentation is a process that filters out the regions covered with skin. This algorithm gave us inaccurate results on dark skinned cells.

ROI : Media Pipe



Canonical Face model

This is the face mesh that gets generated as a base by media pipe.



Generated Mesh

We select the landmarks we are interested in, to prepare to create a mask.



Generated Mask

After applying a bitwise on the mask and the input we get a mask we can use to extract a rPPG signal.

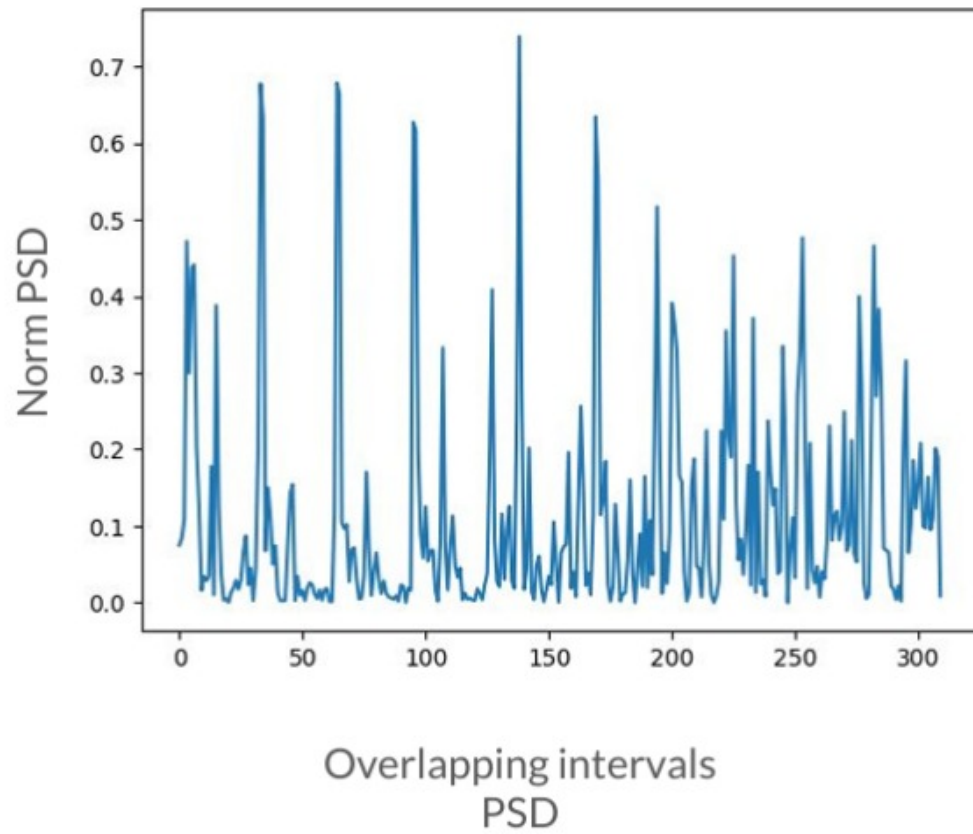
Features

Initial Training

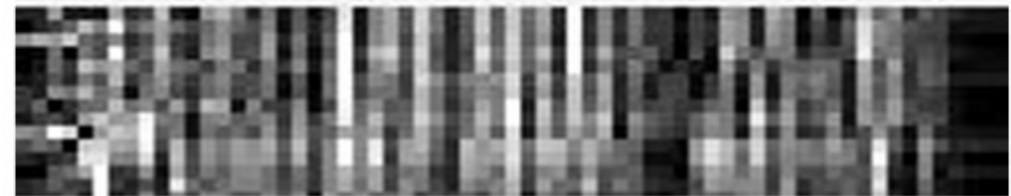
Video Size : 150 frames (5 sec)

Features		Accuracy
Normalized PSD	Logistic Regression	65.89 %
	ANN (10 - Dense Layer)	64.27 %
MS LTSS	Logistic Regression	65.19 %
	ANN (10 - Dense Layer)	51.51 %
Overlapping PSD 60 frames - 10 intervals	Logistic Regression	80.00 %
	ANN (100 - Dense Layer)	80.51 %

PPG-Spectral Map



Real



Fake

Result : Accuracy

Features		Accuracy
Normalized PSD	Logistic Regression	65.89 %
	ANN (10 - Dense Layer)	64.27 %
MS LTSS	Logistic Regression	65.19 %
	ANN (10 - Dense Layer)	51.51 %
Overlapping PSD 60 frames - 10 intervals	Logistic Regression	80.00 %
	ANN (100 - Dense Layer)	80.51 %
PPGs Maps	CNN	96.13%