Assignment 1 - Content-Aware Automatic Photo Enhancement

By Anoop, 2015CS10265 and Akash, 2015EE30522

• Face Detection:

• AINDANE -

Implemented "Adaptive and integrated neighborhooddependent approach for nonlinear enhancement of color images" paper

• Skin Segmentation -

Tried multiple techniques from different papers/tutorials. Found best implementation to be the one given in CAPE paper Appendix B

• WLS Filter -

"https://github.com/drakeguan/cp11fall_project1/blob/mast er/wlsFilter/wlsFilter.m"

Took ideas from above matlab implementation to implement WLS Filter in python3

• Sky Detection :

 Swatch Selection: Swatch selection followed by sky segmentation has been implemented. This is an alternate method proposed in the class.

• Shadow-Saliency Enhancement :

- Saliency Map Implementation taken from https://github.com/akisato-/pySaliencyMap
- <u>CAPE Enhancement</u> Using the saliency map obtained, further enhancements

have been made according to CAPE.