Sweet Shades: Exploring a Framework for Augmented Reality

By: William Ou, Edward Gonzalez, Julianna Flores, Erik Rodriguez
Mentor: Noah Stier
UCSB Four Eyes Lab
Applications of Mixing the Real and Virtual World

Augmented Reality (AR) layers digital content over the real world
Using Facial Detection to Build a Filter for Shades

Face + Shades = Shades Filter
Using OpenCV for Facial Detection

Facial Keypoints

Points of interest on shades
Troubleshooting by Fixing a Performance Bug

```python
import cv2
import numpy as np

while True:
    # Loads a database for a facial detection algorithm
    face_detector = cv2.CascadeClassifier("haarcascade_frontalface_alt2.xml")
    # Loads the face landmark detector
    facial_landmark_detector = cv2.face.createFacemarkLBF()
    facial_landmark_detector.loadModel("lbfmodel.yaml")
```
Testing Facial Detection Accuracy and Limitations

Plain

Accessories
Testing Facial Detection with Multiple Variables
Improving Accessibility and Entertainment via AR
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