

# Final Project Progress Report 1

*Please make this document anonymous.*

**Team name: Shallow Faces**

**TA name: Henry Lucco**

*Restate the goal of the project succinctly.*

The goal of the project is to anonymize people's faces by replacing their face with one from a dataset of computer generated faces

*What has the team collectively accomplished?*

We have implemented a basic front end for our project, begun working on face swapping, and begun working on classifying gender based on an image of someone's face.

*What individual tasks have been accomplished?*

C: Implemented face detection using dlib, open-cv and a pretrained dlib model to detect the key points of the face

J: Basic frontend, initial communication with Python

A: Added button for anonymizing faces on front end and corresponding server route, adapted VVG code from Homework 5 to run on gender classification dataset

*What are the current tasks?*

C: Implement face swapping

J: Flesh out the frontend, allow selecting faces to swap

A: Training VVG model on gender classification

*What tasks remain undefined?*

How to search for best randomly generated face based on skin tone, gender, and age

Making this work in realtime (if it's fast enough)

Temporal consistency?

*What are the next steps?* The next steps are to finish implementing face swapping. Once we do this, we are planning to integrate our existing VVG model to classify chosen images based on gender. We also need to find a way to search for the best randomly generated face based on skin tone, gender, and age. We also need to integrate the face swapping code with the frontend/UI, and collect a dataset of faces to use as replacements.

*Are you missing resources? Data, compute, skills?*

We've found some possible sources for images from movies, but it would be nice to have a more diverse collection of images that include people (but aren't cropped to just their faces). Especially people in large groups.