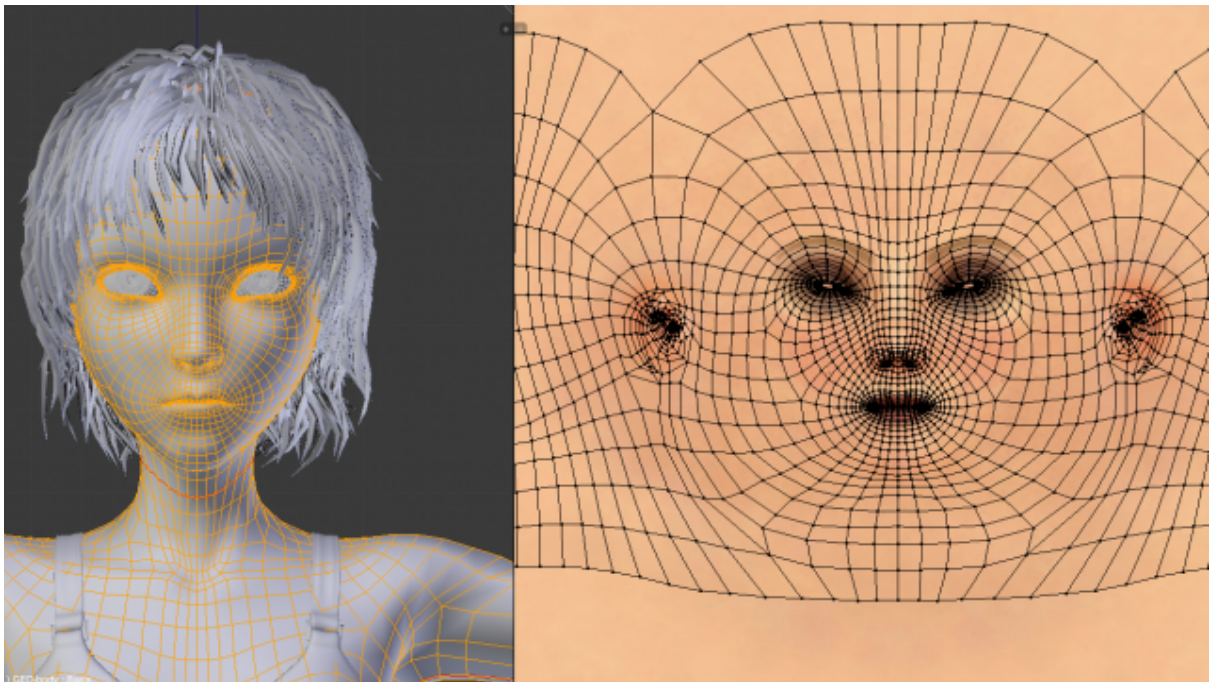# Image processing Requirements

Need python api (may include OpenCV) for image processing to track face and its core areas like eyes, nose, mouth and head, for a look alike avatar creation process.

Overview
We need the system to provide us with an API that we will be sending the user's uploaded selfie image, the system then is expected to process the uploaded image and find out the parts of face as mentioned above. Wrap the image of the face in the desired way and save the new wrapped image and send it back as the response.

Type of Wrapping Required

As seen above, we have to place the user's face on top of the unwrapped uv image of the model so that we can create a look alike avatar.

Task Steps

1. Provide an API that accepts images as body.
2. Process the image and detect if there is a valid face in the image.
3. Incase if no valid image is detected, send a response back with an error that no valid image found.
4. Incase if a valid image is found, take the face part and wrap it on top of the provided uv image (as given in the example snapshot above).
5. Save the new image onto the server disk.
6. Send back the response with the link for the newly created image.

Expected Tech Stack
Python, Flask, OpenCV