Priscilla Carbo

Professor Akbas

SE451 – 01DB

February 8, 2022

Engineering Notebook Spring 2022

January 13th, 2022

- Started first sit-down meeting

January 18, 2022

- Spoke to professor akbas regarding goals for the project this semester
- Specifically asked for utilization of landmarks, numbers, and coordinates to be used in an algorithm
- We could do this multiple ways, using a cnn
- Can we use these faces and create an algorithm that would find the landmarks on the face automatically
- Since we already have marked faces, we can train the network and test it using other additional faces
- Group decided and agreed to utilize numbers to pinpoint and assign the landmarks on the face instead of manually selecting them on the images
- Goal is to focus software on the accuracy of selecting the landmarks on the face, specifically only 10 points on the face
- We could use the images from the previous group since they are flat 3d images for pinpointing the landmarks on the face
- Research must be conducted regarding facial recognition; Maree has already some research on this in the past

January 20th, 2022

- Talked to akbas regarding the dataset of significant points
- Shared database with jarod to use a subset for our model
- Explained that we need to use some type of task tracker like scrumwise or senhub to check our progress and what each member is working on and prefers zunhub because its directly integrated w github
- Looking into which NN model were gonna be using and finishing product backog by next Tuesday

January 24th, 2022

- Discussed the new product vision with scoped project and product goals
- Marvins was able to draft up the product vision and the rest of the group also corrected and added up

- Group discussed potential user stories and items on the product backlog to be added

January 25th, 2022

- Was not in class due to car troubles and going to get them fixed
- Assisted in adding some of the product backlog items to the zenhub
- Received the significant landmarks from the face to be manually added onto the synthetic faces
- Reviewed the product vision that was created by marvin

January 26th, 2022

- Worked on finalizing the product backlog

January 27th, 2022

- Notes were provided by akbas on tasks to complete for the semester and progress to be provided
- Create cluseter of the faces that is similar to each other using KNN to show it to akbas (wants to see it)
- Check synthetic faces, if we can mark landmark on it or not on the digitized website
- If we are able to mark the landmark, include the synthetic faces
- There is a tool to manipulate faces to create more data base (??)
- Research resource: 3D face scans
- Big goal later in the term: use GANZ to create an image after rhinoplasty
- Bigger database
- Better accuracy

February 1, 2022

- Discussed the clustering that was done by jarod and marvins assistance
- Jarod didn't include the significant landmarks and ratios that were given to the group by akbas; akbas insisted we use those significant landmarks
- Also discussed facial recognition usage for detection of landmarks on faces by training the model using synthetic faces
- Maree, alex, and I are looking more into this
- Marvin is looking more into using the GANs for modeling

February 3rd, 2022

- Marvin and Maree continued discussing GANs for the modeling of the product
- Group also kept discussing the SRS and SDD
- Modeling needs to be completed for the design documents
- Group completed the first deliverables of the SRS and SDD with final reviews

February 7th, 2022

- Group got together to discuss the sprint one presentation

- I was not in attendance for this meeting as I had class until 8 pm
- Group updated me later in the evening regarding all the slides I needed to complete for the presenation

February 8th, 2022

- Group got together prior to the class to go over the presentation slides one last time
- Group presented sprint one summary later that day
- Need to meet with the product owner during the week to discuss results

February 22nd, 2022

- Worked more on the models for the SDD and reorganizing the documents given the feedback from the TAS
- Team decided to move on from contacting the Gan model representatives and owners as we were being denied too many times
- Maree figured out how to utilize FaceGen to generate the faces that were needed to populate the database

March 1st, 2022

- Discussed with Maree the faces that would be generated and division of tasks
- Maree would be generating the faces using FaceGen and sending them to Alex and I to add the landmarks
- Alex and I discussed division of faces and workload

March 3rd, 2022

- Started working on the facial landmarks given the initial faces that was provided by Maree
- Pending on more faces to be added to the database from Maree

March 8th, 2022

- Worked on the SDD and SRS
- Primarily worked on reworking most of the SDD as many of the goals, and as such architectures/design of the system, had changed

March 10th, 2022

- Selected nasal points along with facial points that would be utilized in the clustering model for Jared
- Faces were created by Maree utilizing the FaceGen software
- Worked with Alex in placing all the points on the face

March 22nd, 2022

- Continued working on the landmarks for faces that Maree had added

March 24ᵗʰ, 2022

- Finalized working on the initial pictures that Maree added
- Utilized all the points needed for the clustering model that were previously used and nose points that Jared had requested

April 3ʳᵈ, 2022

- Began working on the faces that Marvin had created
- Worked on exclusively the male faces
- Faced some issues with the naming of the obj, mtl, and jpg files. Consulted Maree for help when uploading them to the digitized rhinoplasty
- Decided on a new naming for the male faces from facegen

April 6ᵗʰ, 2022

- Reformatted and renamed all of the mtl, jpg, and obj files that were uploaded and imported into the digitized rhinoplasty website
- These are then used to place all of the facial landmarks

April 8ᵗʰ, 2022

- Had a meeting with the group to discuss the final submission of the system design document and system requirements specifications document

April 15ᵗʰ, 2022

- Met with the group to finalize the system test plan
- Alex submitted the test plan onto the GitHub

April 19ᵗʰ, 2022

- Finished more of the faces that Marvin had recently added.
- Still need to complete about 10 faces (Male Faces) will all facial and nasal landmarks for the clustering model that Jarod executes

April 21ˢᵗ, 2022

- Finalized the remaining faces and added facial landmarks
- Added all of the exported JSON files onto the GitHub as well as the renamed obj, mtl, and jpg files that were imported onto digitized rhinoplasty.