Priscilla Carbo

Professor Akbas, Dr. Cheng

SE450 – 01DB

December 3rd, 2021

<center>Option 9: Engineering Log</center>

Sprint 1

- ❖ October 26th, 2021
  - ➢ Group meeting to discuss future deliverables
  - ➢ Discussed with team potential machine learning models and algorithms that could potentially be implemented into digitized rhinoplasty system
  - ➢ Jarod initially proposed the idea of utilizing the convolutional neural network
  - ➢ Team members completed first document drafts and deliverables including SRS and SDD
- ❖ October 28th, 2021
  - ➢ Completed sprint 2 demo
  - ➢ Discussed future plans and schedule for the next sprint
- ❖ November 2nd, 2021
  - ➢ More sprint 2 presentations from the rest of the course
- ❖ November 4th, 2021
  - ➢ Discussed with Dr. Cheng regarding sprint 2 presentation, comments, and expectations for the final sprint
  - ➢ Gave us critiques regarding the way our system was presented
  - ➢ Group agreed and understood what to fix for future sprints and presentations
- ❖ November 9th, 2021
  - ➢ Maree and Jarod spoke to Professor Akbas regarding the deliverables from the previous sprint
  - ➢ Discusses concerns and comments regarding the presentation and the system
  - ➢ Group discussed future plans and schedule
- ❖ November 11th, 2021
  - ➢ Talked about images that Alex was able to find
  - ➢ Compiling the images for the database presented many challenges
  - ➢ Images were unusable for the algorithm to be executable and provide any accurate information
  - ➢ Group discussed different methods of obtaining images for the models that would be the most optimal
- ❖ November 16th, 2021
  - ➢ Group was not able to discuss with Dr. Akbas
  - ➢ Discussed virtually regarding the current standing of the system
  - ➢ Discussed the importance of the database and images that were required
- ❖ November 18th, 2021

- ➢ Met with Dr. Akbas and spoke regarding the challenges and difficulties obtaining the right images were for the system
- ➢ Dr. Akbas provided suggestions and a recommended database from Microsoft of faces that could potentially work for our project
- ➢ These images were initially unusable for our project as they were in the wrong format; Team agreed to use these images to format them in the way we needed for our models
- ❖ November 23rd, 2021
  - ➢ Group discussed regarding the current updates regarding database and images
  - ➢ Many team members agreed that the current method of unwrapping all of the images could be too time consuming and complicated to produce viable results
- ❖ November 25th, 2021
  - ➢ Group did not meet for the holiday
- ❖ November 30th, 2021
  - ➢ Team members in the group worked on compiling all the images in the database
  - ➢ Other team members worked on the program to ensure the models were completed
  - ➢ Other team members worked on the documentation and modeling of the system to ensure the drafts for the system were completed for the final deliverables and presentation
- ❖ December 2nd, 2021
  - ➢ Final presentations for some of the groups
  - ➢ Some team members continued work on completing the compilation on all the images required

Sprint 2

- ❖ January 18th, 2022
  - ➢ Met with Dr. Akbas and solidified the goals for the project
  - ➢ Shifted the project timeline and general outcomes of the project
  - ➢ Was able to discuss with team the expectations and things that we would need to accomplish
- ❖ January 20th, 2022
  - ➢ Researched facial recognition as a potential solution for the new-found goals
  - ➢ Discussed that the project goals would be shifting to a software that can automatically place significant landmarks on the face
  - ➢ Research into potential databases began
  - ➢ Considered that the previously used database program would be obsolete, and we needed to look at different options
- ❖ January 25th, 2022
  - ➢ Continued looking for facial recognition software that could potentially be used
  - ➢ Also worked on the backlog items that needed to be changed and added
- ❖ January 27th, 2022
  - ➢ Met with Dr.Akbas again and discussed different options that we were looking into
  - ➢ Dr.Akbas provided different feedback and recommendations of software/databases we could utilize
- ❖ February 1st, 2022

- ➢ Met with Akbas and provided more updates on software that was found
- ❖ February 3rd, 2022
  - ➢ Finalized different Gan models that could be used and began reaching out to different companies and representatives
- ❖ February 8th, 2022
  - ➢ Waiting on responses from representatives to use software to create a larger database for the clustering model
- ❖ February 10th, 2022
  - ➢ Discussed reaching out to other Gan model owners to utilize their models in our project
  - ➢ None of the owners had responded or denied access due to licensing issues
  - ➢ Marvin assisted in contacting Dr.Akbas to try to fill out permissions for academic purposes
- ❖ 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