

CHAPTER VII CONCLUSION

7.1 Conclusion

Based on the results of the design and implementation of a face recognition system to RPA software at Glee Trees Pte. Ltd., the following conclusions can be made:

1. Glee Trees Pte. Ltd. needed a face recognition system implemented into their flagship product called Gleematic to compete with their competitors.
2. The face recognition system consists of a client, and server side. The face recognition algorithm used is an open-source library using a pre-trained deep learning model for detection, and recognition.
3. The face recognition algorithm has a dynamic variable called tolerance that ranges from 0 to 1; the default value for the variable is 0.6. lowering and increasing the tolerance value affects the accuracy; and is very situational (hence why it can be set by the end user) and only affects how strict the algorithm is.
4. The face recognition system is robust, and able to detect faces with an average speed of 500 ms for every frame, with an accuracy of ~98% with tolerance set at the default value of 0.6; requiring only minimal computing power to do so.
5. Number of possible use cases that can be automated by Gleematic has been increased due to the fact that Gleematic now has face recognition capabilities built-in.

6. Implementation of the face recognition system has added an additional selling point that Glee Trees Pte. Ltd. can use to leverage itself among its competitors since competitors don't have face recognition as a feature.

This is proven by the fact that the term "Face Recognition" is used in their brochures and other marketing materials.

7.2 Suggestions

Some suggestions to further develop the face recognition system is that the GUI for the various parts of the system can be further improved on to make it more user friendly. There are various other algorithm and methods available for face recognition, the face algorithm used is one of many available; It's possible to try and use other methods of face recognition for the system to further improve speed and accuracy. There's also a possibility that the face recognition technology in use has seen an improvement after development has finished, so the system's face recognition algorithm can be updated to keep up with the times.