EE/CprE/SE 491 WEEKLY REPORT

3/2/2020 – 3/15/2020

Group number: 27

 Project title: Big Classroom Support

Client &/Advisor: Dr. Lotfi

Team Members/Role:
Brendan Niroula - Leader
Ali Al Ahbabi - Front End Development
Jian Kai Lee - Back End Development
Zechen Huang - Facial Recognition Specialist

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Weekly Summary

The objective of this week was to get the front end, log in, UI finished and to get a connection between the glasses and the phone. Tasks completed include set up development environment for glasses, finish login UI, research glasses connectivity SDK. We were able to transfer simple data to the phone from the glasses. We are currently working on getting the glasses to send video to a backend server.

Past Week Accomplishments

Set up development environment for glasses and transfer simple data to a phone from the glasses
- Brendan Niroula
  ● Connected a phone to the glasses and enabled debug mode on glasses
  ● Set up and tested some simple programs on the smart glasses
  ● Sent simple data from glasses to the phone

Develop front-end mobile app on android- Ali Al Ahbabi
  ● Login page
  ● Instructor page
  ● Student page
  ● Sending login info to the backend using HTTP

Develop the back end server with Django REST API Framework - Jian Kai Lee
  ● Learn django REST framework
  ● Create a sample REST framework
  ● Research Django framework

Develop the back end server with Django, and set up face recognition algorithm environment - Zechen Huang
- Learn Django
- Create small Django project
- Setup face recognition algorithm environment with Django

Pending Issues

Sending video to a server and displaying it using RTMP
Setup Django REST framework in the server

Individual Contributions

Name	Individual Contributions	Hours This Week	Cumulative Hours
Brendan Niroula	Research glasses SDK and setup development environment to support glasses.	6 Last week and 6 this week	40
Ali Al Ahbabi	Develop front-end mobile app on android	6 Last week and 6 this week	42
Jian Kai Lee	Develop the Django REST framework	6 Last week and 6 this week	38
Zechen Huang	Develop the back end server with Django, and set up face recognition algorithm environment	6 Last week and 6 this week	42

Plans for the upcoming week
- Look into RTMP protocol and learn how to transfer video data to a server from the glasses - Brendan
- Send and receive data from Front-end to the backend and receive stream from the smart glasses to display it on the mobile app - Ali Al Ahbabi
- Finish setting up django back end server - Jian Kai Lee
- Successfully connect Django and face recognition algorithm environment - Zechen Huang

Summary of weekly advisor meeting

- Need to focus on sending streaming data to the backend from the glasses
- Discuss the use of django REST framework for back end
- Received the smartglass from the professor and checked out the functionality.