

## EE/CprE/SE 492 BIWEEKLY REPORT

9/19/2020 - 10/12/2020

Group number: 27

Project title: Big Classroom Support

Client &/Advisor: Dr. Lotfi

Team Members/Role:

Brendan Niroula - Leader

Ali Al Ahababi - 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 set up the real time socket using django channel and implement the facial recognition with the smart glass and android. The facial recognition server will return the names of people in the captured image and send to the phone. The django channel has been successfully implemented and is able to create a constant communication channel between Server and glasses. The facial recognition end points are also up and running, we can send an image to the endpoint and it will return a name from the database.

### **Past Week Accomplishments**

Set up Websockets for continuous communication with server, hitting facial recognition endpoints, sending name to the server - Brendan Niroula

- Created a websocket connection with the server to continuously communicate for picture requests.
- Sending image taken to Facial Recognition endpoint for processing
- Name sent back by the endpoint is then sent to the server which requested the picture.

Added a feature to android app - Ali Al Ahababi

- Added the feature where the instructor can send a request to get the captured image from the smart glasses.

Implemented django channel for real time system- Jian Kai Lee

- Integrated channel for sending image
- Tested real time channel in django
- Discussed the flow of project and misunderstanding in backend

Learning opencv and websocket- Zechen Huang

- Find several ways to add names on picture
- Not ready for websocket yet

### **Pending Issues**

- Issue where taking a picture during live stream causes live stream to pause

### **Individual Contributions**

Name	Individual Contributions	Hours This Week	Cumulative Hours
Brendan Niroula	Websockets, Facial recognition, server communication	5 last week and 7 this week	113
Ali Al Ahabbi	Added a feature to android app	6 Last week and 6 this week	108
Jian Kai Lee	Implemented django channel in backend	6 Last week and 6 this week	108
Zechen Huang	Demo opencv to add names on pictures, but have some error with django server	6 Last week and 6 this week	110

### **Plans for the upcoming week**

- Make the whole pipeline fluid and ensure the app does not crash- Brendan
- Update UI to not include button to send picture - Brendan
- Test the flow of project and research in django channel more - Jian Kai Lee
- Try to use opencv to transform the image to a labeled image- Zechen Huang
- Assist Ali with new apis - Zechen Huang
- Rewrite the code for sending the profile image to the new api created by zechen -Ali

### **Summary of weekly advisor meeting**

Integrated face recognition function in the flow and test the flow of the project