EE / CprE / SE 491 – sddec18-12

360 Webcams for Zoos and Aquariums

Week 09 Report: 2018.03.25 - 2018.03.31

General Information

Client: True 360 (Christopher James)

Faculty Advisor: Dr. Henry Duwe

Team Members:

Name	Primary Role	Secondary Role(s)
Nathan Cool	Front-End Engineer	Project Manager, Webmaster
Zach Newton	Front-End Engineer	Scrum Master, QA
Ian Jamieson	Back-End Engineer	Graphics Lead
Alan Negrete	Back-End/Database Engineer	Scribe, QA
Tarek (TJ) Yacoub	Embedded Engineer	Communication Lead, QA
Hosam (Sam) Abdeltawab	Embedded Engineer	Software Architect

Weekly Summary

Over the past week, our team dedicated significant time to developing some of the crucial components of our architecture. On the front-end side, basic view architecture and user authentication (via Firebase) were added. On the back-end, Firebase administrative code was added. On the embedded side, work was done to test communication related to sending and receiving commands.

Past Week Accomplishments

Nathan: I worked with Zach to reorganize the client code and finish up implementing the basic architecture. I also continued researching React/Redux for learning purposes so that I can be more efficient when working with Zach.

Zach: Finished implementing the view routing structure of the client app. Also implemented user authentication (login and registration) with Firebase. This concluded the major architectural needs on the client side; now, it is a matter of implementing individual views. Concluded the week by creating a team gmail account (*true360-dev@gmail.com*) for firebase project purposes.

Ian: Continued testing Firebase. Started researching alternatives to store archival video of the video streams.

Alan: Completed putting the Backend API on a EC2 instance for live testing. Could not make it work with Firebase as it needed to be a 'paid' project in order to make calls outside of firebase servers. Also completed Firebase Admin implementation on the back-end.

TJ: Implemented some test code that uses websocket to show everybody how the workflow of registering and sending/receiving commands looks like.

Sam: Added some modifications on the Raspberry Pi to fix the driver issues.

Recent Group/Client/Advisor Meetings

Date, Time, Location	Participants	Details
2018.03.26, 13:15 - 14:45, Atanasoff 223	Group	General meeting with progress updates for each sub-team
2018.03.29, 15:30 - 16:30, Coover 3138	Group + Client + Advisor	General meeting with progress updates for client and advisor

Pending Issues

Nathan: Continue gaining a thorough understanding of React and Redux.

Zach: Front-end testing. Deployment script.

Ian: N/A

Alan: Implement CD/CI - having issues setting up a Runner for it.

TJ: N/A

Sam: N/A

Individual Contributions

Name	Individual Contributions	Hours This Week	Total Hours
Nathan Cool		8	88
Zach Newton	SEE PAST WEEK ACCOMPLISHMENTS	15	75
Ian Jamieson		5	72

Alan Negrete		9	73
Tarek (TJ) Yacoub		8	74
Hosam (Sam) Abdeltawab		8	73

Upcoming Plans

Nathan: Work with Zach to continue working on the front-end, particularly the implementation of UI views.

Zach: This week I will focus on pulling data into the client app from our backend API. The primary focus will be on checking user roles/permissions in order to only give access to correct views. The secondary focus will be on pulling in cameras, zoos, and archives that the user has access to. I hope to sync with Alan on what more (if anything) we need from the backend api.

Ian: Provide options for AWS data storage.

Alan: Adjust the firebase admin on the back-end to use the new group Firebase Project.

TJ: This week i will work on the implementation of the communication interface that will be using to send/receive commands between frontend and embedded.

Sam: Working on turning the Raspberry Pi into a wireless access point in order to connect a different type of camera to it that has streaming capability over wifi.