EE / CprE / SE 492 – sddec18-12

360 Webcams for Zoos and Aquariums

Week 10-11 Report: 2018.10.23 - 2018.11.05

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	Machine Learning	Graphics Lead
Alan Negrete	Front-End/Back-End	Scribe, QA
Tarek (TJ) Yacoub	Embedded Engineer/SRE	Communication Lead, QA
Hosam (Sam) Abdeltawab	Embedded Engineer	Software Architect

Weekly Summary

Over the past two weeks, our team continued working to connect all major project components. By the end of this report period, we had the pipeline working so that a user could do the following summarized set of tasks:

- Run the AWS-based microservices architecture, consisting of an archive storage service, a front-end website hosting service, communication services between front-end/microservices/CV/embedded. This architecture is scalable in order to support many devices/users, theoretically around the world.
- Register a user via the front-end website.
- Sign into the front-end website.
- Turn on a "mock" camera, represented by the embedded program running on a team member's laptop.
- (Register the camera, if necessary) and connect it to the rest of the system.
- View existing archive clips for affiliated zoos.
- Interact with connected camera(s) to start camera streaming.
- Interact with connected camera(s) to stop camera streaming and save clips in AWS.

Past Week Accomplishments

Nathan: Continued working on all remaining project documentation (PIRM #2, diagrams, design document v3, final report, final poster, final presentation).

Zach: Finished implementing the 360 video viewer, which was much more difficult than it seemed at first glance. Began work on a swappable 360 vs normal video viewer component.

Ian: Continued work on activity monitor and fine tuning that. Continued work on the CV model for labeling images. Sent code to TJ for integration into the pipeline.

Alan: Worked on fixing bugs that were causing large loads on the content management service. Also began to set up some role protected routes.

TJ: Set up all the code that is necessary for Ian to integrate into the pipeline

Sam:
- Understanding the pipeline
- Setting up code for easy pipelining

Recent Group/Client/Advisor Meetings

Date, Time, Location	Participants	Details
2018.10.23, 15:00 - 16:00, Atanasoff 223	Team	General meeting
2018.10.25, 14:00 - 15:00, Atanasoff 213	Team	General meeting
2018.10.30, 15:00 - 16:00, Atanasoff 223	Team + Advisor	General meeting
2018.11.01, 14:00 - 15:00, Atanasoff 213	Team	General meeting

Pending Issues

Nathan: N/A

Zach: Swappable 360 video viewer might get hacky.

Ian: N/A

Alan: N/A

TJ: Domain Service migration and seeding, and always executed on each rebuild which results in a lot of duplicates.

Sam: N/A

Individual Contributions

Name	Individual Contributions	Hours This Week	Total Hours
Nathan Cool		15	80
Zach Newton		12	74
Ian Jamieson	SEE PAST WEEK ACCOMPLISHMENTS	18	83
Alan Negrete		13	86
Tarek (TJ) Yacoub		22	102
Hosam (Sam) Abdeltawab		19	85

Upcoming Plans

Nathan: By fall break, I plan to finish the PIRM #2 presentation and all diagrams relevant to the final documentation. I plan to have a completed first draft of the design document v3, the final report, the final poster, and the final presentation. If I am not able to reserve sufficient time to review these documents with the rest of the team (including collecting feedback from our advisor), it will be my first priority when returning from break.

Zach: Return the UI flow to the previously discussed global zoo context flow. It became less defined when we were pushing to get a demo done, and it's time to go back and clean up tech debt.

Ian: Continue work on activity monitor and integration of model into algorithm.

Alan: Set up the ability to create zoos & exhibits for the super admin role.

TJ: Create a migration task for Domain Service.

Sam: Working with TJ to try to get the migration task quickly.