sdmay18-34: Integration of personnel tracking in an Augmented reality environment

Week 9 Report
November 13 - November 17

Team Members

Logan Highland — *QA Lead*
Chandler Chockalingam — *Project Manager*
Christopher Stapler — *Report Manager*
Josua Gonzales-Neal — *Lead Engineer*
Jason Ramirez — *Software Architect*
Victor Da Silva — *Chief Engineer*

Summary of Progress this Report

For this reporting period, our team delve deeper in CSI and using it to aid in our tracking solution. After learning more, we analyzed the capabilities of the solution and came to the conclusion that for our purposes we will be better off implementing a Wi-Fi triangulation/trilateration solution.

Pending Issues

As we have determined that we are going to turn to Wi-Fi triangulation instead of a CSI-based tracking approach, we have to change our documentation going forward to reflect the change. Most of the overall system will stay the same except for the tracking aspect.

Plans for Upcoming Reporting Period

We plan to have the changes to our project plan taken care of. In addition, we hope to have a solid understanding of the architecture of the tracking portion of our project.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Logan Highland	Worked on changing the plan for how to complete this project, looked into implementing RSSI as a tracking method and possibly using similar setup to Differential GPS.	3	53
Chandler Chockalingam	Discussed CSI with team members, client, and advisor and realized it was not feasible for our project. Looked more into RSSI solutions as an alternative.	5	42
Christopher Stapler	Worked to get SpotFi's Matlab code working with sample data. Experimented further with Linux CSI tool capturing CSI of packets from an open network. Learned how monitoring	8	59

	mode worked as it would be the configuration required for Spotfi to work. Researched into potential pitfalls our team might face using CSI as our main tracking solution.		
Josua Gonzales-Neal	Worked on putting the pc together. Looked at different hardware approaches. Made sure the pc was functional and useful to our needs.	3	41
Jason Ramirez	I looked up information on RSSI Wi-Fi triangulation. I worked on the python script for the RSSI methods of location tracking.	3	43
Victor Da Silva	I looked up information on RSSI Wi-Fi triangulation. I worked on the python script for the RSSI methods of location tracking.	4	42