

sdmay23-17: CySecAgri: Cybersecurity for IoT-enabled Precision Agriculture

Week 1 Report

August 29 - September 30

Team MembersTom Ruminski — *IoT Infrastructure*David Wolfe — *IoT Infrastructure*Joe Hunter — *Application Development*Rian Lamarque — *Cloud Development*Syed Al-hussain — *App Development*Eli Hanson — *Cloud Development***Summary of Progress this Report**

- 1) Completed lightning talk and design document about User Needs
- 2) Created system flow diagram for initial design
- 3) Decided groups of two to work on three major aspects of design
 - a) IoT infrastructure, Cloud Security, and App Development
- 4) Began research on implementation for each aspect

Pending Issues

Waiting on approval from grad students to use sensors and base stations

Plans for Upcoming Reporting Period

- Continue researching respective design aspects
- Meet with professor to make sure we are meeting expectations
- Gain approval from grad students
- Mock sensor data to allow for application function prototyping

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Tom Ruminski	Reviewed papers on the current trends in IoT authentication, prioritized vulnerabilities, identified 2 potential authentication methods	5	
David Wolfe	Market analysis comparing different commercial solutions to the provided IoT system	4	
Joe Hunter	Reassessed user needs and looked into different mobile development platforms	4	
Rian Lamarque	Researched possible services available in AWS	4	0

	Cloud		
Syed Al-hussain	Researched APIs, storage, and analytics for the webapp	4	
Eli Hanson	Researched IAM options for AWS Cloud	4	

Gitlab Activity Summary

Nothing to report.
