Emily Daitch
emily.daitch@gmail.com | (706) 829-8025

Education

B.S. in Computer Engineering - Georgia Tech (GT) 3.42 with High Honors — May 2017

Skills

Software: C++/C, Python, MATLAB, Docker, Terminal Commands (Linux & Windows), HTML5/CSS3
Electrical / Mechanical: AutoCAD, 3D Printing, Soldering, Wiring
Communication: Technical Writing, Data Presentation, Public Speaking
Tools and Libraries: Git, TDD, Jenkins, Qt Widgets and signal/slots, openCV, opengl, boost
Robotic: PID control, Sensor payload programming, Computer Vision application plugins

Work History

John Deere **SWE Development Program** (3x 8 month rotations) — *July 2018 to Current*

Electronics Engineering Group, Sprayers - Des Moines Works Factory — 3rd Rotation, Ankeny IA

- Refactored C++ applications to use the new AUTOSAR (AUTomotive Open System ARchitecture) framework
- Developed MBSD (Model Based System Design) components in Simulink, supporting the transition to AUTOSAR
- Aligned with the architect and integrator to ensure payload success
- Created a python script consolidating 30 sets of MBSD test results. Discovered and patched missing test coverage.

Section Control - John Deere Intelligent Solutions Group (ISG) — 2nd Rotation, Urbandale IA

- Lead developer of the Manual Overlap Control App to provide more accurate yield data to Harvesters
- Contributed production software from Presentation layer (gui) down to Communication layer
- Interfaced with the UX and Customer teams to ensure compliance with branding and customer expectations.
- Regularly contributed to root-causing and solving system defects
- Extensive use of Qt Widgets and signal/slots

Automation Delivery Organization - ISG — 1st Rotation, Urbandale IA

- Learned Docker on the job to containerize a legacy test environment, setting the stage for cloud deployment
- Refactored 20+ Jenkinsfiles in response to the changed system.
- Participated in a pilot program as a liaison for my team. The pilot program studied different simulation software available to be contracted for future R&D. Specifically, we explored these options with creating simulated training data for machine learning in mind.

John Deere **Product Engineering Intern** - John Deere - Cary, NC — *May 2016 to July 2016*

- Accelerated log analysis by automating detection of faulty signals using CAPL (CAN Application Programming Language)
- Worked with Vector CANalyzer to solve engine-controller defects
- Earned machine operator certificate in order to test machine behavior with various controller payloads

John Deere **Software Engineering Intern** - ISG - Urbandale, IA — *May 2015 to July 2015*

- Built HIL (hardware-in-the-loop) pipe to inject images from a software simulation into proprietary camera hardware in order to drive a vision based guidance application
- Gained experience with boost, Qt, and OpenCV libraries

Undergraduate Research Assistant - GT Low Frequency Radio Lab — *March 2014 to June 2015*

- Prototyped a portable radio receiver to combat phase instability in the field
- Developed on BeagleBone Black Programmable Real-Time Units and Digilent FGPA
- Best Research Presentation Award 2016 and 2017

Leadership

Rainbow Employee Resource Group - Urbandale, IA and Cary, NC — *2016 Internship - Present*

- Presented Educational LGBT material at many D&I educational events
- Organized resume review session with LGBT University of NC students