W5016 Florine Lane Fort Atkinson, WI 53538 william.jacobs@wisc.edu 920-397-6183

#### **Objective**

Full time entry-level engineering position in data processing, systems, firmware and embedded programming, and automation and controls systems.

## Professional Summary

Programming expertise with the C, C++, Java, Python, MATLAB, and Bash scripting. Proficiency with digital and analog industry tools Git, GDB, KEIL, and applications of oscilloscope, signal generator, surface mount and through-hole soldering. Senior Capstone project: refined PID control of robotic arm to seek objects utilizing input from an ultrasonic sensor to locate and move objects within a defined workspace. Worked with large team of peers to develop neural network based detection of objects from video stream with Python and Tensorflow over the network from conception to product realization following software engineering principles.

### **Experience**

### Engineering Intern, May 2015 – August 2015

General Dynamics Mission Systems, Bloomington, MN

- Contributed to proprietary GD software project in python within an agile environment.
- Developed Puppet manifests to provision HPC nodes with GD proprietary software.
- Ensured our project met security regulations to integrate with the customer's classified network.
- Presented my work to peers, coworkers, managers, and heads of engineering.

### **Intern Software Developer,** June 2013 – August 2013

Blackthorne Capital Management LLC, Whitewater, WI

- Developed additional features for an internal application in Java and SWT.
- Worked in a paired programming environment and participated in regular code reviews.

#### **Summer App Developer**, June 2014 – August 2014

UW - Whitewater, Whitewater, WI

• Developed Android application that interfaces with Arduino-driven CO<sub>2</sub> sensor over Bluetooth.

### **Tutor, September 2016 – December 2017**

UW – Madison Computer Science Department, Madison, WI

• Provided assistance to students on their academic projects and reinforced in-class concepts.

# **Student Custodial Supervisor** / Student Custodian, August 2014 – December 2017 University Housing Facilities, Madison, WI

- Conducted inspections of team members to maintain APPA standards of cleanliness.
- Organized and directed staff training and meetings.
- Mediated hiring, onboarding and termination of employees.
- Utilized enterprise scheduling and timecard management software to manage employees.

#### **Education**

# **B.S. Electrical Engineering** and **B.S. Computer Science**, December 2017 University of Wisconsin-Madison

#### **Activities**

Eagle Scout; volunteer Madison CS After School Elementary Educational Program teacher; participated in IEEE, MadHacks, Badger Ballistics Amateur Rocketry; various programming competitions, 2011-14: Marquette, MSOE, UW-Whitewater.