

## EDUCATION

*Bachelor of Science in Electrical Engineering*, Pennsylvania State University, Erie, PA

Semester of Graduation: Spring 2018 (May 2018)

Cumulative GPA: 3.3 (Dean's List Semester 6)

Concentrations: Embedded Systems; Control Systems; Mechatronics; Full-Stack Web Development;  
Network Communications; RFID/Bluetooth; Internet of Things (IoT)

## RELEVANT EXPERIENCE

*Embedded Software Engineer Intern*

September 2017 – Present

Truck-Lite, Falconer, NY

Experience Obtained:

- Contributed to research, development and investigation of technology for transportation telematics involving IoT communication devices
- Developed and analyzed firmware code for microcontroller sensors using RF, Bluetooth 5, NFC, and RFID communication to operate in a heavy-duty environment
- Collaborated with lead engineers in team structure with regular meetings

*Electrical Engineer Intern*

August 2013 – August 2014

Bossa Nova Robotics, Pittsburgh, PA

Skills Learned:

- Experienced in analog and digital circuits for robotics and communications platforms with hands on experience in schematic capture and PCB layout
- Developed fluency in Unix shell scripts and Linux production environment
- Collaborated with lead engineers in team structure with regular meetings
- Designed and developed 3D printed parts using Solidworks and Autodesk Inventor
- Ran tests on robotic prototypes and provided analysis and feedback to lead engineers

## SKILLS

**Embedded Systems, Schematic Design and PCB Layout:**

- ARM/MIPS/AVR microcontrollers in Assembly and C with pre-compilation configurations
- Experience with large scale projects using make-files and code organization with repositories
- Altium Designer; Experience with full-cycle PCB development process

**Hardware Debugging Tools:** Oscilloscopes, Multimeters, Spectrum Analyzer, Logic Analyzer

**Control Systems:** Classical and Modern

- Develop tests to formulate transfer functions of various electronic and mechanical systems
- Experience customizing LQR and PID controllers for electromechanical systems using MATLAB

**Full-Stack Web Development:** Javascript, Node.js, Angular.js, HTML, CSS

## PROJECTS

Microcontrollers

Automatic Pet Food Dispenser

Touch Screen and IR Controlled Car

Function Generator

Oscilloscope

LED Controllers

Serial Bluetooth Communication

Miscellaneous

IoT Voice Activated Lights

3D Printing Experience

MEAN Stack Web Development

Three-Phase Power Factor Correction

Resonating Induction Transformer

Battery Management Systems for Li+ Batteries