

**Education:**

**Elizabethtown Area High School**, Elizabethtown, PA

Graduation: 2017

- High School Diploma
- GPA: 4.0

**Elizabethtown College**, Elizabethtown, PA

Graduation: 2020

- BS in Computer Engineering (in progress)
- Overall GPA: 3.87 Major GPA: 3.95

**Relevant Courses:**

Physics I & II, Computer Science I & II, Systems Programming, Operating Systems, Microcomputer Architecture, Computer Organization and Architecture, Digital Design & Computer Interfacing, Green Robotics & Machine Intelligence, Advanced Computer Engineering, Circuit Analysis, Signals & Systems, Control Systems, Calculus I, II, & III, and Linear Algebra

**Experience:**

Intern

**Pennsylvania Senate Republican Computer Services**

Summer 2018

- Provided support to full-time staff by assisting in the operation of the helpdesk, diagnosing & repairing malfunctioning PC's, and keeping software/firmware up to date.
- Responsible for building, imaging, and configuring new machines.

Electrical & Computer Engineering Intern

**Phoenix Contact USA**

Aug 2019 - Present

- Developed Windows PC application for configuration of industrial protocol converter gateways via USB using C# and XAML.
- Performed firmware regression testing for protocol converter gateways.
- Constructed documentation for use of protocol converter gateways and the configuration software.

**Engineering Projects:**

Freshman Project

- Research, design, and construct a solar powered, RC car sized vehicle to travel one hundred meters, while adhering to a strict budget. Provoked communication skills within a group atmosphere, communicated project plans and progress through group presentations, and took part in a competition with performance score based on distance, payload capacity, expense, and time.

Multispectral Camera for Monitoring Plant Health

- Constructed a device using a Raspberry Pi Compute Module and two camera modules to estimate Normalized Difference Vegetation Index and Chlorophyll Index for characterization of plant health.
- Wrote Python script using OpenCV, NumPy, and picamera to process images in real time.
- Verified functionality of the project by mounting the camera system on a drone, for characterization of plant health over a large land area.

**Skills:**

- Programming: Java, Python, C, MATLAB, Intel 8051 Assembly, ARM Assembly, Verilog
- Software: Microsoft Office, Eclipse IDE, Visual Studio, PSPICE, Vivado, Logisim, Autodesk Inventor
- Hardware: PCs (Windows & Linux), PLC, FPGA, Microcontrollers, Oscilloscope, Waveform Generator

**Honors and awards:**

- 2018 & 2019 Hager Scholar in Engineering and Physics
- Named to Fall 2017, Spring 2018, Fall 2018, and Spring 2019 Elizabethtown College Dean's List
- Member of Alpha Lambda Delta National Honor Society
- Emergent Scholar Award