

AIDAN SHARPE

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OVERVIEW

Initiative-taking engineer with years of diverse electronics and programming experience including designing and maintaining professional high-speed PCBs, developing internal software tooling, leading the avionics subteam of Rowan Rocketry, and running technical workshops for the Rowan University IEEE Student Branch.

WORK EXPERIENCE

Industrial Hardware Development Intern

Summer 2024

Inductotherm Corp.

Rancocas, NJ

- Proposed and created an internal Windows Forms tool to resolve disorganized PCB design libraries
- Modernized a proprietary 5V industrial embedded system with a 3.3V microcontroller, ethernet interface, and USB C programming interface while maintaining full backward compatibility
- Enabled high-speed design reuse by creating Altium Designer schematic and PCB snippets for USB C and Ethernet interfaces
- Created manufacturing releases for high-speed, controlled impedance designs using Altium Designer

Industrial Internet of Things (IIoT) Intern

Summer 2023

Inductotherm Corp.

Rancocas, NJ

- Proposed and installed a new IIoT gateway operating system to enable remote system deployments, updates, and diagnostics
- Removed human error by extending an internal configuration tool to directly generate and export IIoT gateway configuration files
- Wrote custom software to enable automatic gateway reconfiguration and telemetry with Azure IoT Hub

SKILLS

Electronics Design

High-speed, impedance-controlled routing; 2, 4 & 6-layer boards; hierarchical schematics

Programming

C#, Python, C, C++, Verilog HDL, Java, Bash, MatLab

Server & IoT

Debian and Fedora Linux, Azure IoT Hub, Docker, Podman, Secure Shell (ssh)

CAD Packages

Altium Designer, KiCAD, FreeCAD, OnShape

Development Tools

Vim, Git/GitHub, Azure DevOps, Visual Studio, VSCode, Eclipse

Soft Skills

Technical documentation and writing, professional written and verbal communication

PROJECTS

Rowan Spaceport America Cup Team

September 2023 – Present

- Led the avionics subteam to design and test a valve controller for a pneumatic parachute deployment system
- Conceived a modular STM32-based flight computer with KiCAD
- Developed a switching power supply board to power flight computers from a 9V battery
- Successfully launched and recovered the rocket at Spaceport America Cup 2024

EDUCATION

Rowan University

Glassboro, NJ

B.S. in Electrical and Computer Engineering

Expected May 2025

Certificate of Undergraduate Study in Cybersecurity Engineering

GPA: 3.76

Martinson Honors College

Fall 2021 – Present

AWARDS & SCHOLARSHIPS

Eagle Scout

March 2020

Delta Ducon Engineering Scholarship

May 2024

Professional Engineering Society of Mercer County — Engineering Student Scholarship

2021