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
- Implemented an avionics system using commercial-off-the-shelf components
- Successfully launched and recovered the rocket at Spaceport America Cup 2024
- Actively developing a modular STM32-based flight computer with KiCAD
- Developed a switching power supply board to power flight computers from a 9V battery

EDUCATION

Rowan University *Glassboro, NJ*
B.S. in Electrical and Computer Engineering Expected May 2025
Certificate of Undergraduate Study in Cybersecurity Engineering
GPA: 3.79
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