

# AIDAN SHARPE

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## ELECTRICAL AND COMPUTER ENGINEER

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Growth-driven engineer with years of diverse programming & electronics experience. Led the avionics subteam of Rowan Rocketry to develop student researched and developed avionics and recovery equipment, resulting in a successful launch and recovery at Spaceport America Cup 2024. As the two-time Workshop Chair of the Rowan University IEEE Student Branch, I created and presented workshops to develop critical engineering skills of underclassmen in my major.

## WORK EXPERIENCE

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### Industrial Hardware Development Intern

Summer 2024

Inductotherm Corp.

*Rancocas, NJ*

- 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
- Created Windows Forms application to manage an Altium Designer parts library in a PostgreSQL database

### Industrial Internet of Things (IIoT) Intern

Summer 2023

Inductotherm Corp.

*Rancocas, NJ*

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

## SKILLS

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### Electronics Design

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

### Programming

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

### Server & IoT

Debian and Fedora Linux, Microsoft Azure IoT Hub, Docker, Podman, Secure Shell

### 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

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### Rowan Spaceport America Cup Team

September 2023 – Present

- Conceived a custom STM32-based flight computer with KiCAD
- Developed a switching power supply board to power flight computers from a 9V battery
- Designed and tested a custom valve controller for a pneumatic parachute deployment system

## EDUCATION - ROWAN UNIVERSITY

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### 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

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Eagle Scout

March 2020

Delta Ducon Engineering Scholarship

May 2024

Professional Engineering Society of Mercer County — Engineering Student Scholarship

2021