

Ryan Moulton

Firmware Engineer

Hello, I'm a computer engineer with electronics, network, and coding skills. I'm looking for firmware opportunities in a positive team environment to apply and expand my skills. I love to learn new things, so if something is unfamiliar I'll find the resources to figure it out.

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WORK EXPERIENCE

Firmware Engineer Schneider Electric via HireGenics Inc.

01/2025 - 06/2025

Firmware maintenance, writing C/C++ for network communication PLCs

Responsibilities and Achievements

- Trained new hire, while documenting and enhancing internal processes
- Became team cybersecurity expert for IEC-62443, and addressed cybersecurity vulnerabilities
- Investigated network driver issues using WireShark
- Developed, tested, and presented solutions for customer issues
- Optimized custom scripts for VxWorks build procedures

Firmware Engineer Schneider Electric via Cognizant

09/2023 - 12/2024

Firmware maintenance, writing C/C++ for network communication PLCs

Responsibilities and Achievements

- Preserved multi-million dollar client account
- Took over for mentor as designated maintenance engineer for three product lines
- Received product from another unit, documented functionality and developer tools, and fixed outstanding customer issues
- Participated in hackathon and developmental certification courses
- Maintained products by investigating user reports and developing solutions

Reliability Engineering Co-op MKS Instruments

08/2022 - 12/2022

Responsibilities and Achievements

- Created a Spark server cluster for integration with machine learning to preempt failures
- Completed failure analysis of various components and lead meetings to discuss findings
- Created Windchill predictions based on hardware data

EDUCATION

Computer Engineering BS Rochester Institute of Technology

08/2018 - 05/2023

3.40

SKILLS

Real-time Embedded Programming

IoT

Internet Protocols (TCP, EIP, CIP, etc)

Agile

Network Configuration

Networking Devices

FreeRTOS

VxWorks RTOS

WireShark

GitHub

Automated Testing

Debugging

Lab Equipment

Linux

PLC

Public Speaking

Arduino

Raspberry Pi

Web Development

Soldering

PROJECTS

Personal Website (12/2025 - Present)

- Manually coding a place to showcase my skills, hobbies and talents, while learning new skills like HTML, CSS and web-accessibility.

Digital Picture Frame (04/2025 - 06/2025)

- Created a network-accessible digital picture frame for my roommate's birthday using IoT devices.

Dual-Channel Signal Generator and Oscilloscope (03/2023 - 04/2023)

- Used embedded programming, FreeRTOS, DMA and UART to create a real-time signal generator and oscilloscope using a microcontroller.

Hands-free Adaptive Keyboard (08/2022 - 05/2023)

- Worked with client to produce a unique, adaptive keyboard.

Autonomous Model Car Competition (01/2022 - 05/2022)

- Used embedded programming to navigate a race track autonomously using a microcontroller, camera, motors, etc.

Retrofitted Guitar Hero Controller (05/2022 - 09/2022)

- Replaced electrical components of a broken guitar hero controller with a Raspberry Pi.

PROGRAMMING LANGUAGES

C

Full Professional Proficiency

C++

Full Professional Proficiency

Python

Professional Working Proficiency

SQL

Professional Working Proficiency

Java

Professional Working Proficiency

Bash

Professional Working Proficiency

Matlab

Professional Working Proficiency

Assembly

Full Professional Proficiency

HTML

Limited Working Proficiency

CSS

Limited Working Proficiency