

# Hayden Schroeder

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## Education

Washington University in St. Louis

- M.E.M. Masters of Engineering Management, August 2025
  - B.S. in Computer Science, December 2024 GPA: 3.87
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**Skills:** Python, C, Linux, Git, Wire Harness Design, PCB Layout, Oscilloscope, Multimeter, and Soldering

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## Technical Experience

### **Intern - Gateway Quantum Electronics**

(May 2024-present)

- Design and prototype a low-pass filter testing device therefore improving testing efficiency by 6x through schematic capture, PCB layout, and component selection.
- Wrote Python API and GUI for network analyzers, signal generators, and low noise current supplies.

### **Project Manager / Electronics and Data Acquisition Lead - WashU Formula SAE Team**

(Jul 2021-present)

- Lead a team that designs and manufactures a race car which competes at Michigan Speedway.
- Create and manage a year long timeline ensuring over 30 projects across 6 subsystems are designed, manufactured, and validated. Act as primary point of contact for systems integration.
- Developed an executive vision containing our team's mission statement, goals, and policies.
- Facilitated design and implementation of all electronics and software on the season's race car. Ended the 2023 season at 12th/120 at the Michigan FSAE competition.
- Designed and manufactured the vehicle wire harnesses resulting in full vehicle functionality including ECU, power, data collection, driver controls, and CAN network.
- Wrote C code for custom sensor boards resulting in data capture from 50+ digital, analog, SPI, and I2C sensors.
- Wrote C code for custom control boards and power distribution module resulting in precise driver controls and smart relay control.
- Self-hosted an Xwiki server enabling 40+ members to collaborate on a centralized documentation server.

### **Information Security Intern - Washington University in St. Louis**

(May 2022-May 2024)

- Identified network vulnerabilities such as misconfigured file uploads and DNS zone transfer.
- Discovered multiple malicious actors such as server backdoors and browser hijackers using Corelight and Splunk.
- Pioneered implementation of Suricata IDS into WashU security framework. Tested and optimized IDS, and documented results for CISO approval.
- Enhanced and refactored python project that automates viewing and distributing Tenable reports. Reduced codebase size by nearly half.
- Configured and tested honeypots to catch bad actors and automatic scanners on over a dozen services.

### **Intern - BH Tech**

(May 2023-Aug 2023)

- Developed custom interfaces and backend solutions to modernize company processes in SQL Server and Next.js

### **Intern - Technology Partners**

(Jan 2022-May 2022)

- Worked on developing the backend of the TeamBot website ([www.goteambot.com](http://www.goteambot.com))
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## Community Involvement

### **Alpha Phi Omega - Active**

(Feb 2022-present)

- Participate in service projects such as organizing clothes for Americorps STL, planting flowers in Forest Park, engaging with seniors at a memory care facility, and caring for rescued animals.

### **Missouri Boys State - City Counselor (Staff)**

(Jun 2022-present)

- Counseled and mentored about 30 young men in a one week leadership camp that takes in around 1000 high school juniors who work together to build their own state government. Chosen by previous MBS staff.