

# Wyatt Gahm - Hardware Engineering

651-706-4503 | wyattgahm@outlook.com

White Bear Lake, Minnesota

Some project documentation and writeups available at [gahm.dev](http://gahm.dev)

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## EDUCATION

**Michigan Technological University** — *BS Computer Engineering*

AUGUST 2022 - APRIL 2026 (Graduated Spring 2026)

Cumulative GPA: **3.05/4.00**

## PROJECTS

- Simulated and designed transistor amplifiers for small signal analog processing
- Integrated microcontroller firmware and PCB with 4+ peripherals
- Developed an iOS library for debugging and modifying various applications
- Optimized embedded firmware and an app for an cloud-enabled lighting system
- Read datasheets and specifications, learning new skills +systems independently
- Used disassembler software to debug and understand executables
- Developed and reverse engineered IOS applications (Swift, ObjC)

## SKILLS

**Languages & Scripting:** C and C++, Assembly, Verilog, Python, Java

**Architectures & Platforms:** ARM64, MIPS, RISC, Arduino MCUs, FPGAs

**Software:** KiCad, Quartus, Altium, IDA Pro, MultiSim, SolidWorks, Linux, Git

**Embedded Systems:** Microcontroller firmware development, bare-metal programming, peripheral integration, simulation + debugging + testing

**Protocols & IO:** I2C/TWI, SPI, UART, Networking (Ethernet, IPv4+6, TCP, REST, etc...)

**Equipment Knowledge:** Oscilloscope, function generator, spectrum analyzer

**Experience:** Worked on personal embedded HW/FW/SW projects for 5+ years.

## COURSES OF NOTE

Computer Architecture and Organization, Microprocessors, Signal Processing, Advanced Electronic Applications, Circuits I & II, Cryptography, Concurrent/Multiprocessing

## WORK EXPERIENCE

**Wilderness Canoe Base, Minnesota** — *Backcountry Canoe Guide*

MAY 2023 - AUGUST 2025 - [Summer 2023 + 2025]

- 12477 Gunflint Trail Grand Marais, MN 55604
- Qualifications and responsibilities
  - Completed training: NOLS Wilderness First Aid
  - 200+ Miles of travel with guests
  - Led peers and guests to build new skills
  - Managed critical situations and communication carefully
  - Charitable service and volunteer work

**Dellwood Country Club, Minnesota** — *Lifeguard*

JUNE 2022 - AUGUST 2022 - [Summer 2022]

- 29 East Highway 96, Dellwood, MN 55110
- Qualifications and responsibilities
  - Coordinated medical responses and followed safety procedures
  - Red Cross CPR training, Red Cross EO training
  - Worked and collaborated in a team setting