Henry Thode

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Highlight of Qualifications

- Enrolled in McMaster University's Computer Engineering Co-op program, seeking 4-, 8-, 12- and 16- month co-op positions starting May 2026
- Demonstrated experience in RTL design and microprocessors in coursework
- Strong time management, organizational skills and attention to detail in technical projects

Education

Bachelor of Engineering Co-op (BEng) | *Computer Engineering*   *2023 – 2028*

McMaster University

Projects

Hardware Image Decompressor | *Digital Systems Design Course Project*   *Dec 2025 – Feb 2026*
- Implemented an image decompressor using an Altera DE2 board and VGA interface
- Programmed a system of finite state machines in Verilog to perform image decompression on a compressed 320x240 image
- Increased common case efficiency interpolation and colour space conversion by achieving 93% utilization of onboard multipliers

Hallway Scanner | *Microprocessor Course Final Project*   *Feb – April 2025*
- Developed an ARM M4 based hallway scanner using a LiDAR sensor to measure out hallway dimensions, demonstrating proficiency with microprocessor programming
- Programmed C code and employed I2C and UART communication protocols to transfer data
- Prepared project report to detail design process, exhibiting communication and documentation skills

Extracurricular Activities

High Voltage Team Member | *McMaster University Solar Car Team*   *Sept 2024 – Present*
- Designed the high voltage electrical powertrain for the solar car project using AutoCAD
- Collaborated with other team members to build and test components, demonstrating communication and teamwork skills in technical environments
- Ordered and installed high voltage equipment such as IGBTs, MOSFETs, batteries and supercapacitors

Skills

Software: Verilog, C/C++, Python, Java, Git/Github, MATLAB, Simulink, Pspice, Autodesk Inventor

Hardware: FPGA Design, ARM & Arduino Microcontrollers, Soldering, Analog & Digital Interfacing