GRANT HINCHER

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SUMMARY

Newly graduated electrical/computer engineer with a solid and wide spanning foundation, mostly specializing in embedded systems and embedded controls. Always excited to learn more and work on new and interesting things. Experienced with analog circuits, controls, signal processing, computer architecture and hardware, and embedded programming.

EDUCATION

University of Michigan   *August 2021- May 2025*
B.S.E. in Electrical Engineering
Minor in Mathematics
Overall GPA: 4.0
William J. Branstrom Freshman Prize recipient, James B. Angell Scholar
Notable Coursework: Antenna Theory, Computer Architecture, Digital/Logic Circuits, Analog Circuits, Wireless Link Design, Embedded Systems Design, Embedded Controls Systems, Control Theory

WORK EXPERIENCE

Hendrickson International   May 2024 - August 2024
Electronic Controls Intern   *North Canton, OH*
· Helped test, validate, and document various systems in the late development stage
· Worked on some new ideas to improve existing products using embedded systems (tire pressure monitoring on commercial trailers).
· Designed test equipment for manufacturing, notably a simple comparator for checking batteries on the factory floor.

Japanese Auto Repair   May 2023 - August 2023
Auto Technician   *Sylvania, OH*
· Performed more basic repairs such as brakes, tires, suspension, etc.
· Did many other miscellaneous jobs to support productivity like taking care of scrap parts, organizing facility, landscaping, and some electrical work.

NOTABLE PROJECT EXPERIENCE

Bicycle Safety Radar System   Fall 2024
University of Michigan, EECS 473
· Designed an embedded system utilizing radar, BLE communication, and a simple UI to detect incoming vehicles on a bicycle as part of a project team.
· Handled all of the mechanical mounting design, learning proficiency with AutoCAD
· Helped layout PCB and design system software, learning more about interfacing with microcontrollers (an ESP32) and RTOS.
· Wrote a first version of a simple API for the lighting invovled.

Synthesized OoO Processor   Winter/Spring 2025
University of Michigan, EECS 470
· Worked on a team to create a synthesizable, physically realizable out of order processor with Verilog HDL based on the MIPS R10K architecture, implementing the RISC-V ISA.
· Optimizing for performance with features like sophisticated branch prediction and cache optimizations.

SKILLS

· Capable programmer in C/C++ and Matlab
· Extensive experience using Linux, have done limited work with device drivers
· Very experienced with computer/digital hardware and its applications in embedded systems
· Well acquainted with analog circuits, have done some amplifier and antenna design/analysis
· Fast learner equipped to pick up whatever else is necessary