Yousef Maitah

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Education

University of Michigan **Ann Arbor, MI**
Bachelor of Science in Electrical Engineering Expected Fall 2025

- GPA: 3.7/4.0
- Relevant Coursework: Computer Organization, Digital Circuits, Logic Design, Introduction to Quantum Nanotechnology, Programming and Data Structures, Signals and Systems, Differential Equations, Electromagnetics
- Awards/Honors: James B. Angell Scholar, Dean's List, University Honors

Experience

Nexteer Automotive **Saginaw, MI**
Electrical Engineering Intern, Systems Application Team May. 2024-Aug. 2024

- Designed an ignition test box for an OEM's first production Steer-by-Wire (SbW) project, contributing to the goal of building OEM trust by increasing our reliability through improved test coverage
- Conducted deep-dive analysis of OEM design, safety, and software requirements, enhancing feature function mapping coverage
- Authored detailed work instructions for test setups, contributing to improved testing efficiency and knowledge sharing

Nexteer Automotive **Auburn Hills, MI**
Electrical Engineering Intern, ECU HIL Team May. 2023-Aug. 2023

- Designed and executed comprehensive subsystem-based test procedures to enhance the validation of single and dual ECU-based electric power steering systems, contributing to reliability improvements across multiple platforms
- Configured and debugged harness/test bench setups for diverse customer configurations, leading to a significant reduction in setup time and increased testing efficiency by 30%
- Collaborated with cross-functional teams to troubleshoot and resolve complex hardware and software integration issues, ensuring test setups accurately simulated real-world conditions and met stringent customer specifications

Projects

Four-Function Calculator **Ann Arbor, MI**

- Developed a four-function calculator (addition, subtraction, multiplication, division) on the DE2-115 FPGA board using Verilog, simulating RTL (Register Transfer Level) design
- Designed control logic for an 11-bit two's complement number calculator, utilizing push buttons and switches for input and seven-segment displays for output
- Implemented overflow detection with indicator LEDs and managed timing constraints using a 50MHz clock

EPS Driven **Saginaw, MI**

- Collaboratively designed and built a fully functional go-kart as part of a team-based engineering challenge, managing the complete lifecycle from conceptualization to construction and testing
- Utilized a provided motor and battery, adhering to strict budget constraints for additional supplies, to engineer a competitive and safe go-kart capable of racing and passing durability trials

Skills

Languages: C, C++, SystemVerilog, Python, MATLAB
Tools: Cadence Virtuoso, Arduino, Oscilloscope, ModelSim, Quartus, Vector Tools, Git
Techniques: CAD, Soldering, Hardware Validation, FPGA, Communication Protocols