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Deliver impactful solutions by leveraging technical skills and fostering an environment built on teamwork

EDUCATION

Michigan State University - East Lansing, MI — May 2026

Bachelor of Science, Electrical Engineering (Dual major in Computer Engineering) — GPA: 4.0

Skills: C/C++, Python, MATLAB, Verilog, FreeRTOS, TensorRT, PyTorch, Git

Programs: Cadence Virtuoso, Cadence PSpice, Altium Designer, KiCad, LTspice

Coursework: Computer Architecture, Signal Processing, C/C++ Programming, VLSI Design

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EXPERIENCE

Intelligent Edge Microsystems (I-EML) Lab - East Lansing, MI

Undergraduate Research Assistant — January 2025 - Present

- Deployed and benchmarked image recognition models on the NVIDIA Jetson AGX Orin, applying pruning and INT8 quantization to cut memory footprint and inference latency without accuracy loss
- Developed an image augmentation pipeline in C++ supporting geometric transformations, color adjustments, and noise injection, while achieving a 3× speedup over a baseline Python implementation
- Fine-tuned Stable Diffusion 3 to generate synthetic datasets for vision model training, improving generalization while reducing data collection requirements
- Designed a dual-view ResNet-based model for image-based circumference estimation, using late fusion to enhance prediction robustness across varying viewpoint

DayDream Inc. - Grand Rapids, MI

Firmware Engineering Intern — August 2024 - June 2025

- Implemented firmware with C++ to interface the ESP32-S2 SoC with rotary encoders through polling and with the BMI270 IMU through I2C
- Leveraged FreeRTOS to manage 6 concurrent tasks across 2 cores, optimizing resource utilization and ensuring reliable system performance
- Integrated Bluetooth Low Energy (BLE) functionality to enable wireless communication between the ESP32-S2 and mobile devices, supporting real-time data exchange and remote control features.
- Designed schematics and PCB layout for a smart AR device via Altium Designer, focusing on power and communication circuits

KPIT Technologies - Novi, MI

Software Development Intern, Middleware — June - August 2024

- Built a formatting tool with Python to help with the implementation of MISRA C guidelines for generated C scripts, identifying over 90% of compliance violations and reducing manual review time
- Automated generation of Lauterbach PRACTICE test scripts through Excel and Python, lowering prerequisite technical barriers and accelerating the script development process
- Maintained codebase documentation and prepared weekly presentations to keep key stakeholders apprised of progress and obtain feedback

Physical Ultrasonics, Microscopy, and Acoustics (PUMA) Lab - East Lansing, MI

Professorial Assistant — September 2022 - May 2024

- Employed data augmentation and preprocessing techniques to enhance the diversity of time-series datasets with MATLAB
- Utilized Python to implement algorithms to compute and visualize material properties from signals collected via ultrasonic testing, obtaining results within 5% of accepted values
- Built a preprocessing pipeline to clean and format raw data from ultrasonic testing and prepare it for machine learning applications.