

Sawyer Brundage

Electrical Engineer

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I am an electrical engineer with specialization in embedded systems and digital circuit design. As a result, I am proficient in C/C++ and Python programming, Verilog/SystemVerilog, along with circuit design tools such as Spice and KiCad. However, I do not let my specialization define me; I am always eager to learn new skills and strive to understand unfamiliar concepts and perspectives.

Portfolio: <https://digestednothing.github.io/>

SKILLS

- C/C++, Python Programming
- Embedded Systems Design
- Machine learning frameworks (PyTorch, scikit-learn)
- Digital circuit design (Verilog, Cadence, mflowgen)
- PCB design and assembly (KiCad)
- Circuit simulation (LTspice)
- Communication protocols (SPI, I2C, UART, Bluetooth)
- Technology CAD (Sentaurus)
- Soldering techniques (SMD and through-hole, splicing)
- Signal testing and measurement (oscilloscopes, logic analyzers, signal generators)

WORK HISTORY

Student Researcher, Stanford S4 Lab | Jun 2024 - Dec 2024

Stanford, CA

- Developed a control interface for an autonomous agricultural mobile robot using STM32U5 and Nordic nRF52833 microcontrollers.
- Engineered firmware in C to enable RC-car motor control via Bluetooth gamepad inputs.
- Integrated front-facing camera functionality to capture images and store them on a microSD card.
- Configured data collection setup for imitation learning by installing eight low-power ultrasonic sensors.
- Defined action space and established control scheme for effective locomotion.

Electrical Engineer, Acoustic Research Detachment | Jun 2022 - Dec 2023

Bayview, ID

- Engineered software and embedded systems for capturing and analyzing sensor data.
- Maintained underwater sensory arrays and submarine models to ensure operational efficiency.
- Developed an underwater temperature string and a battery monitoring system (BMS).
- Acquired and maintained security clearance to comply with job requirements.
- Switched employers from GDIT to NSWCCD (government) in August 2023 while continuing similar responsibilities.

EDUCATION

M.S. Electrical Engineering, Stanford University | Sep 2023 - Apr 2025

- Focus in Physical Technology and Science

B.S. Electrical & Computer Engineering, Oregon State University | Sep 2018 - Jun 2022

- Graduated Summa Cum Laude