Nathaniel Okoye-Brandt

Hardware Engineering Intern | Undergraduate Lab Assistant

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PROFESSIONAL SUMMARY

Electrical engineering graduate focused on board-level hardware design, with an internship designing and testing power supplies for industrial sensors. Captures schematics and lays out four-layer boards in Altium, simulates circuits in LTspice and debugs prototypes on the bench. Looking for an entry-level hardware engineering role.

EXPERIENCE & PROJECTS

Pedernales Sensor Systems · Austin, TX **May 2025 — Aug 2025**

Hardware Engineering Intern

- Designed a 24 V to 3.3 V buck converter board in Altium for an industrial pressure sensor, meeting ripple and efficiency targets on the first prototype spin.
- Ran bench tests on load transients, thermal rise and startup behavior, documenting results in a test report used for the design review.
- Reworked a noisy ground layout on an existing sensor board after scope measurements, reducing signal noise that had caused false readings in the field.
- Wrote Python scripts to control a programmable load and log measurements, cutting manual test time for the hardware team.

Department of Electrical Engineering, Central Texas State University · San Marcos, TX **Sep 2023 — May 2025**

Undergraduate Lab Assistant

- Supported weekly circuits labs for 60 students, explaining oscilloscope use and helping debug breadboard circuits.
- Built and tested replacement lab kits for an op-amp experiment, fixing parts shortages that had delayed sessions.

Senior design: Solar-powered water quality monitor

- Designed the power and sensing board, including MPPT charging, battery management and sensor front ends, and field-tested the device for two weeks at a creek site.

EDUCATION

BS, Electrical Engineering **2025**

Central Texas State University

SKILLS

Technical: Altium Designer, Schematic capture, PCB layout, LTspice, Analog circuit design, DC-DC converters, Oscilloscopes and bench equipment, STM32 microcontrollers, C, Python, MATLAB, Soldering and rework

Certifications: Fundamentals of Engineering (FE) Electrical and Computer, passed