

Sidhant Gurung

sidhant.gurung@outlook.com | 469-336-0451 | linkedin.com/in/sidhantgurung

EDUCATION

The University of Texas at Arlington

Bachelor of Science in Electrical Engineering | GPA: 3.75

Expected Graduation: May 2027

- Awards: Dean's List; HKN Nominee; NSCS Invitee
- Relevant Coursework: Embedded Systems, Circuit Analysis II, Power System Stability & Control

PROJECTS

Haptic Focus Assistant (In Progress)

February 2026

- Designing a BLE-enabled wearable system using an ESP32-C3 microcontroller to reduce digital distraction through real time haptic and audio feedback.
- Developed system logic to receive Bluetooth Low Energy alerts from a smartphone application and trigger vibration and audio outputs with timing and safety limits.
- Documented system architecture and protection strategies for reliable embedded hardware design.

AI Heart Rate Tracker (In Progress)

January 2026

- Designing a wearable biometric system integrating PPG heart rate and GSR sensors with an ESP32 for stress and anxiety detection.
- Developing a battery powered prototype with OLED feedback, data logging, and wireless transmission for future cloud analysis.

Temperature Dependent Speed Controller

January 2025

- Designed a microcontroller-based temperature control system using PWM motor control and sensor feedback in C++.
- Created a custom enclosure in Fusion 360 and developed a PCB layout using AutoCAD to meet power requirements.

EXPERIENCE

Pulsed Power and Energy Laboratory, Arlington, TX

February 2026 - Present

Undergraduate Researcher

- Conducted undergraduate research on pulsed power and energy systems, focusing on controlled high-voltage discharge and energy transfer.
- Assisted with instrumentation, diagnostics, and data acquisition for laboratory research projects
- Collaborated with graduate students and faculty researchers in a team-based research environment.

Kura Sushi, Euless, TX

January 2025 - Present

Head Server

- Lead a team of 5+ servers while managing \$10K+ in daily revenue and ensuring efficient workflow.

LEADERSHIP & COMMUNITY INVOLVEMENT

Institute of Electrical and Electronics Engineers (IEEE), Arlington, TX

August 2024 – Present

Student Member

- Participated in IEEE-hosted workshops and webinars focused on embedded systems and power engineering topics.

Additional Involvement: IEEE-PES, SASE, Association for Computing Machinery (ACM), KCA, SEAS

SKILLS

Languages: C, C++, MATLAB, Python

Hardware & Embedded: Microcontrollers, Sensors (PPG, GSR), ADCs, PWM, Signal Conditioning, Oscilloscope

Design & Tools: Circuit Design & Analysis, Revit, I2C, SPI, UART, GPIO, PCB Layout, Control Systems, LTspice, Fusion 360, Lab Instrumentation, Soldering.