

SANTIAGO DELGADO

915-494-8460 | santdelg5995@gmail.com | www.linkedin.com/in/santiago-d | santidelgado.com

EDUCATION

The University of Texas At El Paso (UTEP) Bachelor of Science, Electrical Engineering; Minor in Robotics (GPA 3.16/4.0) • Achievements: NSF ACSC 2026 Selectee (TACC), Study Abroad Spain, Study Abroad Japan • Coursework: Microprocessor System, Digital Logic Design, Software Design, Operating System Design	Aug 2024 - Dec 2027 El Paso, TX
---	---

SKILLS

Programming Languages: C, Embedded C++, MATLAB, Python
Embedded Systems & Microcontrollers: UART, ADC, PWM, Timer (SysTick)
Hardware & Electronics: Analog circuit design, Digital logic design, hardware debugging, oscilloscope
Software & Tools: Code Composer Studio (CCS), Xilinx Vivado, Microsoft Office, VSCode

EXPERIENCE

Power and Renewable Energy Systems Lab, UTEP Undergraduate Researcher • Applied K-means clustering and 4 models to ERCOT load data, hitting 0.93% MAPE , beating Linear Regression by 77% • Presented forecasting research to 120 attendees at COURI 2026, generating 2 project proposals • Built and validated a 39-bus model in PyPSA and pandapower as a baseline for a voltage-collapse risk study • Generated a year of data-center load profiles, sizing loads to 25-30% of system load to reveal voltage-stress scenarios	May 2026 - Present El Paso, TX
Great American Steakhouse Service Manager • Supervised a 20-person service staff across three shifts, 6 days a week, supporting 1,000+ customers weekly at a high-volume restaurant • Built staff schedules, inventory reports in Excel , cutting scheduling errors and keeping inventory variance across 50-hour work weeks • Resolved operational issues under pressure using time-management and the restaurant's ticketing system to speed up service flow • Trained new and existing staff on procedures and best practices, improving team consistency and cutting workflow errors	Aug 2024 - Apr 2026 El Paso, TX

PROJECTS

Seizure Detection Embedded System • Designed a 2-module seizure-alert system on MSP432 microcontrollers, coordinating sensing, alarm, and display subsystems • Coordinated 2-module UART data transfer and configured 3 ADC-based sensitivity levels via C and UART interrupt handling	Apr 2026 - May 2026
Traffic Light Controller (Verilog FSM) • Designed and simulated a 4-state FSM for a 2-direction traffic intersection in Verilog using Xilinx Vivado and ModelSim • Debugged synthesis errors and resolved hardware timing constraints in the XDC file to ensure reliable FPGA implementation	Oct 2025 - Dec 2025
Grocery Inventory System (C programming) • Developed an inventory management system in C tracking 8 fields per item using dynamic memory and binary file storage • Built a 13-option menu system with sorting, filtering, cart, and receipt generation for managing products and transactions	Nov 2025 - Dec 2025
Electrocardiogram (ECG) Signal Processing System • Designed a 3-stage analog circuit for ECG signal acquisition, using operational-amplifier filtering across the 0.5-100 Hz range • Converted analog signals to digital for processing, focusing on signal clarity and real-world biomedical applications	Aug 2025 - Oct 2025

LEADERSHIP

Institute of Electrical and Electronics Engineers (IEEE) Treasurer • Manage organization budget, expenses, and financial records ensuring accurate tracking and reporting financial transactions • Allocate funds to support engineering events, workshops, and projects in collaboration with the executive board	Apr 2026 - Present
IEEE Robotics and Automation Society (RAS) External Affairs Officer • Serve as primary liaison between IEEE RAS and external organizations, sponsors, and partner student chapters • Represent IEEE RAS at university and community events, cultivating partnerships that strengthen chapter visibility	Apr 2026 - Present
Society of Hispanic Professional Engineers (SHPE) Operations Chair • Coordinated room reservations and event logistics for chapter meetings and events • Managed food orders and pickup for events, keeping events on schedule	Apr 2024 - Present