Juan Felipe Pardo

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Recent Electrical Engineering graduate with experience in FPGA programming, embedded systems, and digital electronics. Developed practical solutions through academic projects in robotics and interactive system design, with a focus on creativity and system integration. Currently preparing for the FE Electrical and Computer exam with the goal of sitting for it in December 2025. **Authorized to work in the United States as a U.S. green card holder.**

EDUCATION

University of Houston Houston, Texas
B.S. in Electrical Engineering Graduated May 2025
Dean's List: Spring 2024, Fall 2020
Relevant Coursework: FPGA Programming, Digital Electronics, Analog Electronics, Automatic Control Systems

SKILLS

Technical Skills: C, C++, MATLAB, Python, ARM 7, Verilog
Languages: Proficient in English, Spanish, Portuguese, and French.

- Certification of Proficiency at a B1 level in French Montpellier, France 2019

Certifications & Training: HIL Specialist 2.0, HIL for Power Electronics, Typhoon Test Automation, Typhoon Communication Protocols, HIL for Microgrids

WORK EXPERIENCE

Baker Hughes Claremore, Oklahoma
Engineering Technology Intern Jun 2024 – Aug 2024

- Developed and implemented an automated test script at Baker Hughes using Python and Typhoon HIL platform for the Advantage VSD system, enhancing testing efficiency.
- Automated 120 diverse test cases, ranging from 120% surges to 0% sags in voltage with varying durations, using a 6 pulse VSD system with the possibility of implementation for a 12 or 24 pulse system.
- Script automatically ran through all test cases categorizing test results and recording relevant waveforms for later review by engineers through a generated testing report.
- Reduced test execution time from 8 hours to 30 minutes, accelerating product development while maintaining high test accuracy.

UNIVERSITY PROJECTS

Humanoid Robot Aug 2024 - May 2025

- Designed and implemented the torso of a humanoid robot for the University of Houston BRAIN center, housing the power system and connecting all extremities for seamless communication with the control system
- Utilized CAN bus and Ether CAT in combination with Raspberry Pi 4 to successfully achieve movement of brushless motors giving the robot torso 2 degrees of movement.

FPGA Based Interactive Memory Game Jan 2025 - May 2025

- Designed and implemented a Verilog-based Random Sequence Recall Game on the DE0-CV FPGA board, featuring a secure multi-user login system with ROM-based ID and password verification.
- Developed modular components including difficulty selection, sequence generation, and performance tracking with LED-based feedback to enhance gameplay experience and user engagement.

Diode Thermometer Jan 2023 - May 2023

- Designed a small thermometer using diodes, resistors, bipolar junction transistors, and an Arduino, by taking advantage of the thermal voltage properties of diodes
- Programmed the Arduino to convert voltage readings into temperature measurements, achieving fast temperature change detections

EXTRACURRICULAR

SHPE-Active Member 2021-2025

- Dedicated and engaged member of the Society of Hispanic Professional Engineers, attended workshops, general meetings and networking opportunities. Demonstrated strong teamwork, communication, and problem-solving skills through participation.

Community Service

- Volunteer with approximately 120 hours of community service through Camps International and Special Olympics Ecuador, supporting environmental initiatives and assisting athletes with disabilities. Demonstrated adaptability and teamwork in diverse cultural settings to make a positive impact on local communities and individuals.