

Victor Santana

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RELEVANT SKILLS

- **Programming (in order of proficiency):** C#, C++, Python, Java, C, Rust, HTML/CSS, JavaScript, Assembly
- **Embedded & Hardware:** Arduino (IDE), STM32 (IDE & MX), KiCad (PCB Design & Layout), LTSpice, TinkerCad, Logisim Evolution, Technical Documentation, Circuit Prototyping
- **Lab Equipment:** Oscilloscopes, Function Generators, Digital Multimeters, Soldering
- **Tools & Platforms:** Git/GitHub, VS Code, API Integration, Wolfram, AI-Assisted Development (Copilot, Gemini, ChatGPT), OOP, Serial Communication, Debugging
- **Leadership & Languages:** Team Management, Technical Training, Mentoring, Spanish (Native)

EDUCATION

Bachelor of Science in Computer Engineering

Anticipated: July 2027

Brigham Young University - Idaho

Rexburg, Idaho

- **Certificates:** Computer Programming & Embedded Systems
- **GPA:** 4.0/4.0
- **Scholarship:** Brigham Young University-Idaho Grant 2024-2026 (Acknowledgement of Academic Excellence)
- **Relevant Courses:** Microprocessor Based System Design, Fundamentals Digital Systems, Electric Circuit Analysis, Programming Classes, Data Structures, Algorithm Design

PROJECTS

- **Microcontroller-Based Battery Voltage Meter | ECEN 260 (Jan-Apr 2024):** Engineered a measurement system using an ADC and voltage divider circuit to scale 9V inputs, featuring UART/I2C communication for a PuTTY CLI and LCD1602 interface protecting entirety of hardware during 8-scenario stress testing
- **Tinaco Smart Water Level Monitor | Personal (Feb 2026):** Designed an Arduino and C++ ultrasonic monitoring system to computerize water tracking, delivering a real-time capacity readout via an I2C LCD and LED alerts, eliminating manual rooftop inspections
- **Launch Vehicle Logistics Simulator | Personal (Feb 2026):** Created a Java-based mission validation tool featuring a State Machine Parser and custom CSV persistence layer to compute "Go/No-Go" checks for payload manifests, ensuring data integrity during hierarchical reconstruction of complex rocket-to-satellite relationships
- **AI Job Coach Platform | CS 310 (Team Project) (Jan 2026):** Constructing a Node.js/PostgreSQL backend with Row Level Security (RLS) and operate triggers to ensure 100% data isolation, while implementing secure document telemetry for AI feedback

LEADERSHIP EXPERIENCE

Institute of Electrical and Electronics Engineers (IEEE)

Rexburg, Idaho

Student Branch Vice Chair

September 2025 - Present

- Directed 3+ multi-disciplinary student teams and mentored group leads, ensuring project alignment with IEEE standards and semester milestones
- Orchestrated 5+ workshops in KiCad PCB design, Arduino, and soldering for up to 30 students per session, increasing the department's hands-on technical proficiency
- Executed 4+ networking events and site tours with Micron and Idaho Falls Power, boosting student-industry engagement and expanding the university's professional pipeline

EXPERIENCE

Faculty Technology Center Lead

May 2024 - Present

Brigham Young University - Idaho

Rexburg, Idaho

- Led and coordinated a 20+ member team, managing task delegation and one-on-one technical training to achieve great appointment resolution rate
- Exceeded weekly deployment targets by 120% by automating setup workflows, delivering 10+ complete 14-week courses weekly via Canvas
- Improved and maintained 100+ online courses, applying systematic problem-solving to resolve configuration issues and optimize end-user experience