

# Victor Santana

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## RELEVANT SKILLS

- Hardware & Software Tools: Arduino & IDE, STM32 & CubeIDE, GitHub, ChatGPT (Ask mode), Gemini (Ask & Agentic), VS Code Copilot (Ask & Agentic mode), LTSpice, Logisim Evolution, Oscilloscopes, Function Generators, Soldering, KiCad, API usage, TinkerCad, Wolfram
- Programming Languages (in order of proficiency): C#, C++, Python, Java, C, Rust, HTML, CSS, JavaScript, Assembly
- Management & Soft: Scheduling, Team Management, Team Training, Spanish Language, Mentoring

## EDUCATION

### Bachelor of Science in Computer Engineering

September 2023 - July 2027

Brigham Young University - Idaho

Rexburg, Idaho

- Certificates: Computer Programming & Embedded Systems
- 4.0 GPA
- Scholarship: Brigham Young University-Idaho Grant 2024-2026 (Acknowledgement of Academic Excellence)
- IEEE Student Society Vice Chair
- Relevant Courses: Hardware & Electronics: Microprocessor Based System Design, Fundamentals Digital Systems, Electric Circuit Analysis I. Software & Algorithms: Classes, Data Structures, Algorithm Design

## PROJECTS

- **Food Storage Management System | Personal:** Developed a C#-based file architecture and computerized email notification system to track expiration dates, reducing potential food waste by 20% and ensuring 100% alert accuracy through custom input validation and conditional logic
- **Microcontroller-Based Battery Voltage Meter | ECEN 260:** 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 100% of hardware during 8-scenario stress testing
- **"Tinaco" Smart Water Level Monitor | Personal:** Designed an Arduino and C++ ultrasonic monitoring system to computerize water tracking, delivering a 0-100% real-time capacity readout via an I2C LCD and LED alerts, eliminating the need for manual rooftop inspections
- **Launch Vehicle Logistics Simulator | Personal:** Created a Java-based mission validation tool featuring a State Machine Parser and custom CSV persistence layer to automate "Go/No-Go" checks for payload manifests, ensuring 100% data integrity during hierarchical reconstruction of complex rocket-to-satellite relationships
- **AI Job Coach Platform | CS 310 (Team Project):** Built a Node.js/PostgreSQL backend with Row Level Security (RLS) and automated triggers to ensure 100% data isolation, while implementing secure document telemetry for AI feedback
- **Random Password Generator | Personal:** Designed a Python-based utility to automate high-volume generation of secure strings using a nested-loop architecture and the random library. Implemented a comprehensive character-mapping system to ensure high-entropy output and custom-length parameters for user-driven credential management

## EXPERIENCE

### Faculty Technology Center Lead

January 2025 - Present

Brigham Young University - Idaho

Rexburg, Idaho

- Improved and maintained 100+ online courses within an LMS, applying systematic problem-solving to resolve configuration issues, enhance reliability, and optimize end-user experience
- Collaborated in a dynamic team environment, utilizing various 5+ technologies to complete tasks efficiently and adapt to evolving project goals
- Led and coordinated a 20+ member team, assigning tasks, conducting targeted one-on-one technical training, and achieving a 100% success rate in office appointment resolution
- Developed and deployed 25% of BYU-Idaho's online courses each semester, ensuring scalable, standardized, and high-quality delivery across Canvas and supporting platforms
- Exceeded weekly deployment targets by 120% by optimizing setup workflows and leveraging automation, delivering 10+ complete 14-week courses per week with high accuracy