Valentina Herrera Molano

Recent Graduate in Simulation Engineering, Salutatorian
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EDUCATION

Bachelor of Science in Simulation & Visualization (B.S.) Graduation: September 2025
Full Sail University, Winter Park, FL
Simulation Engineering.
GPA: 3.99.

SKILLS

- SolidWorks, Inventor, OnShape, Eagle, Arduino, Soldering, 3D printing, Laser cutting, CNC milling, printed circuit board assembly, Python, C, C++, C#, Unity, Unreal, Trello, GitHub, Microsoft Office Programs
- English (Proficient), Spanish (Native)

EXPERIENCE

Student Tour Guide February 2025 - September 2025
Full Sail University, Winter Park, FL
- Served as student ambassador on Full Sail University's Behind the Scenes Tour.
- Guided big crowds through the school's facilities on a predetermined route.
- Assisted with set-up and closing procedures on the day of each event.
- Provided customer service while interacting with potential new students and visiting guests.

PROJECTS

Smart Pill Dispenser
Class Project June 2025 - July 2025
Objective: design a human-centered assistive technology product to help make the user's life easier.
- Developed a smart pill-dispenser concept focused on improving medication adherence and accessibility.
- Designed the mechanical system in SolidWorks and performed motion studies to validate mechanism accuracy.
- Designed, fabricated, and soldered a custom printed circuit board to integrate the electronic system into the device.
- Programmed a microcontroller to control a servo motor that rotates to expose only one pill slot at a time, ensuring users access the correct medication.
- Implemented an alarm system to alert users at scheduled medication times.
- Built a user interface with an LED display and buttons for pill placement and alarm setup, allowing users to control the dispenser and motor functions.

Six Degrees of Freedom Platform Simulation December 2024 - February 2025
Class Project
Objective: build a small Stewart motion platform and develop a Unity simulation that mirrors the platform's real movement.
- Led the project through all stages, including mechanical design, fabrication, electronics, and software integration.
- Designed the platform in SolidWorks following professor's specifications, and fabricated components using 3D printing and laser cutting machines.
- Designed, fabricated, and soldered a custom printed circuit board.
- Configured serial communication between the microcontroller and a Unity application to stream real-time motion data.
- Developed a Unity simulation of a robot flying over traffic, synchronized to the platform's movements.
- Enabled user control of the robot to avoid collisions and win the game, creating a gamified motion-simulation experience.
- Delivered a functional motion feedback system capable of enhancing immersive entertainment experiences.

CERTIFICATIONS

Certified SOLIDWORKS CAD Design Professional.