Jayson Mendoza

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CAD/PLM: SolidWorks, Catia, ENOVIA **Mechanical:** 3D Printing, BOM, Soldering

Programming & Simulation Tools: MATLAB, Python, C, SQL

EDUCATION

The University of Texas at Arlington

Honors B.S. in Mechanical Engineering | Minor in Business Administration

Member: Society of Hispanic Professional Engineers (SHPE), inSTEM, The Vertical Flight Society

WORK EXPERIENCE

Online Grocery Associate

Walmart

May 2024 - September 2024

Expected Date: May 2027

North Richland Hills, TX

- Accurately processes customer orders in a fast-paced environment by locating, preparing, and packaging merchandise, verifying order accuracy before pickup, making appropriate product substitutions while consulting with customers to ensure satisfaction, and following up on out-of-stock items as needed.
- Consistently ranked in the Top 5 out of approximately 70 colleagues in Average Pick Rate, demonstrating exceptional speed
 and efficiency by maintaining a sustained daily performance of 120+ picks per hour. Proven ability to meet and exceed
 productivity targets in a fast-paced work environment.
- Maintained merchandise presentation by restocking and rotating products, removing damaged or expired items, setting up
 and organizing displays, ensuring accurate pricing and signage, inspecting merchandise for quality and freshness, and securing
 fragile or high-shrink items to minimize loss and enhance the shopping experience.

Best Buy May 2023 - October 2023

Retail Sales Associate

Hurst, TX

- Exceeded sales targets by increasing **membership sign-ups** by **20%** through clear communication of benefits like exclusive discounts, free shipping, extended returns, and 24/7 tech support.
- Handled customer transactions across cash, credit, and digital payments, while providing product recommendations and promoting warranties, services, and financing options.
- Processed 50+ daily returns and exchanges with 100% policy compliance, contributing to a 95% customer satisfaction rating from post-transaction surveys.

PROJECTS

Haptic Glove for Virtual Interaction | Work in Progress

July 2025 - October 2025

- Designed and fabricated a wearable haptic feedback glove using flex sensors and vibration motors to simulate tactile sensations in virtual environments.
- Integrated Arduino microcontroller with custom circuitry to process hand motion data and trigger haptic responses.
- Programmed system logic in C, enabling real-time mapping of finger movements to digital interactions.
- Collaborate cross-functionally with electrical and software teams to integrate sensor hardware and data visualization
 components.
- Writing documentation of design steps and system logic to support ongoing development.

Autonomous Tennis Ball Retrieval Robot | SolidWorks, GD&T, COTS, 3D Printing

January 2025 - May 2025

- Designed and built a robot using **Arduino** to autonomously capture a free-falling tennis ball and transport it 6 feet into a tray within 30 seconds.
- Created custom mechanical parts in **SolidWorks** with **GD&T-compliant** engineering drawings; fabricated components via **3D printing** and **laser cutting**.
- Integrated **COTS components** (gears, bearings, fasteners) for motion transmission and structural support, adhering to strict project constraints.
- Performed motion simulation and stress analysis to validate performance and ensure safe, repeatable operation without damaging the ball or the environment.

Robotic Project: Rod Retrieval Robot | Sensor Calibration, EV3 Software, Mechanical Design October 2024 - December 2024

- Led a team of five in designing, building, and coding a LEGO MINDSTORMS EV3 robot to retrieve and transport rods, demonstrating strong leadership and collaboration skills.
- **Developed and implemented code** using **EV4 software**, ensuring precise robot movements, alignment, and successful rod retrieval and placement.
- Troubleshoot and optimize robot performance, overcoming challenges with Bluetooth connectivity, sensor calibration, and speed control to improve efficiency and reliability.
- Applied engineering principles and problem-solving skills to enhance the robot's design, integrating sensor-based navigation and mechanical stability for successful task execution.