

Jayson Mendoza

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CAD/PLM: SolidWorks, Catia, SolidWorks, ANSYS, ENOVIA

Mechanical: 3D Printing, BOM, Soldering

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

EDUCATION

The University of Texas at Arlington

Expected Date: December 2027

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

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

WORK EXPERIENCE

Walmart

May 2024 - September 2024

Online Grocery Associate

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

Smart pH Monitoring System | Work in Progress

May 2025 - August 2025

- **Designed** and prototyped a compact sensor housing for a pH monitoring system using **SolidWorks**, applying **GD&T** to ensure manufacturing precision and alignment in sensor placement.
- **Created** detailed technical drawings and toleranced part specifications for CNC machining and 3D printing. **Selected** corrosion-resistant materials suitable for aqueous chemical environments, considering both mechanical strength and chemical compatibility.
- Conducted **FEA simulations** to validate enclosure integrity under stress and thermal loading scenarios
- Collaborate cross-functionally with **electrical** and **software** teams to integrate sensor hardware and data visualization components.
- Iteratively tested and refined the system through lab trials, **improving** mechanical sealing and fluid flow consistency.

Autonomous Tennis Ball Retrieval Robot |

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 Design Project: Rod Retrieval Robot |

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.