Jayson Mendoza

817-724-9977 | **jaysonschools@gmail.com** | **LinkedIn** | **Portfolio**/**https://jaysonmendoza.github.io/**

EDUCATION

The University of Texas at Arlington	**Expected Date: December**
B.S. in Mechanical Engineering	Minor in Business Administration	**Current GPA: 3.477**

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

TECHNICAL SKILLS

Design & CAD/PLM: SolidWorks**,** Catia, ENOVIA, GD&T, Bill of Materials creation
Programming: MATLAB, Arduino, Python, C, SQL
Mechanical: 3D Printing
Analysis and Testing: Motion Simulation, Stress Analysis, Sensor Calibration

PROJECTS

Underwater Remotely Operated Vehicle | *Work in Progress*   October 2025 - Present
- An Arduino-based ROV capable of **submerged maneuvering** using multiple thrusters controlled via a dual-axis joystick.
- It will use a **waterproof chassis and buoyancy system** designed in **SolidWorks**.
- Real-world testing will be used to validate **propulsion** efficiency, stability, and control **responsiveness**.

pH Monitoring System | *Arduino, pH Sensor, Circuit Design*   July 2025 - October 2025
- Designed and implemented a real-time pH monitoring device for water quality analysis.
- Integrated pH sensor with Arduino microcontroller to collect and process data.
- Built a custom circuit for sensor calibration and stable analog-to-digital signal conversion.
- Documented hardware setup, calibration procedure, and software workflow to ensure reproducibility.

Autonomous Tennis Ball Retrieval Robot | *SolidWorks, GD&T, COTS*   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**.
- 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.

WORK EXPERIENCE

Walmart	May 2024 - October 2024
Online Grocery Associate	*North Richland Hills, TX*

- Ranked in the **Top 5** of ~70 associates by maintaining **120+** picks per hour in a high-volume environment.
- Improved **customer satisfaction** by providing accurate substitutions and resolving out-of-stock issues.
- Reduced **loss & shrinkage** by securing fragile/high-value items and maintaining organized displays.

Best Buy	May 2023 - October 2023
Retail Sales Associate	*Hurst, TX*

- Increased membership sign-ups by **20%** through clear communication of benefits and services.
- Processed **50+ daily returns and exchanges** with full compliance, contributing to a **95% customer satisfaction rating**.
- Consistently **exceeded sales targets** by recommending warranties, financing options, and product solutions.