

# MATTHEW GARCIA

Computer Engineer | Embedded Systems | IT Systems | Digital Design | Robotics

☎ 832-420-4378 @ garciamatthew176@gmail.com 🔗 [linkedin](#) 🔗 [portfolio](#) 📍 Baytown, TX ☆ <https://github.com/Matthew-Garcia>

## SUMMARY

Senior Computer Engineering student with 6 years of hands-on experience in IT support and embedded systems. Proficient in C/C++, Python, and real-time system design. Experienced in developing robotics and IoT projects using ROS2, VHDL, and embedded control systems. Known for building functional prototypes like SCARA robots, LIDAR-based mobile robots, and automation tools that bridge hardware and software. Eager to apply engineering skills to real-world challenges.

## EXPERIENCE



### IT Specialist & Embedded Systems Technician

#### Pasadena Auto Service

📅 2021 - 2025 📍 Pasadena, TX

🔗 <https://www.pasadenaautoservice.com/>

Independent automotive repair company specializing in advanced diagnostics, electronic system repairs, and custom calibration solutions for a wide range of vehicles.

- Diagnosed and repaired vehicle electronics using diagnostic software and tools.
- Maintained and updated the company website to support customer outreach.
- Managed internal company's network: routers, wireless connectivity, and secure file sharing.
- Provided tech support for company systems and IT infrastructure to minimize downtime.
- Updated diagnostic tools for new vehicle models; applied embedded systems and CAN protocols.



### IT Asset Support Technician

#### Lee College

📅 2019 - 2021 📍 Baytown, TX

🔗 <https://www.lee.edu/>

Public community college serving over 7,000 students annually, providing academic, technical, and workforce education across Southeast Texas.

- Managed 500+ IT assets using inventory systems across campus locations.
- Deployed desktops, laptops, and peripherals for labs and offices.
- Installed OS, academic software, and followed imaging standards.
- Coordinated deliveries and installations with Facilities and IT.
- Provided Tier 1 support for network and hardware issues.



### Mentorship Intern – Systems & Aeronautical Engineering

#### FlightSafety International

📅 2021 - 2021 📍 Houston, TX

🔗 <https://www.flightsafety.com/>

FlightSafety International is a global leader in aviation training, specializing in simulation-based instruction, advanced flight simulators, and safety-focused engineering solutions for commercial, government, and military clients.

- Selected through the Puente Mentoring Program to shadow a Senior Systems Aeronautical Engineer with over 20 years experience.
- Gained exposure to flight systems, simulation tech, and aviation safety practices.
- Participated in engineering discussions, shadowed design tasks, and received career guidance.
- Assisted in designing navigation and flight control systems for a simulation craft.
- Built foundational skills in system integration, documentation, and QA in aerospace environments.

## SKILLS

### Hardware & Digital Systems

Verilog, VHDL, Vivado, ModelSim, Quartus, FPGA Development, Digital Logic Design, RTL Design, Timing Analysis, Hardware Testing & Validation.

### Embedded Systems & Programming

C/C++, C#, Python, ARM Assembly, Arduino, STM32, Embedded Linux, Intel FPGA Boards, Oscilloscopes, Logic Analyzers, Multimeters, UART/SPI/I2C Protocols, Circuit Design, FreeRTOS.

### Robotics & Automation

ROS2, Gazebo, Rviz2, URDF/Xacro, Autonomous Navigation, Mapping, SLAM, Sensor Integration (LIDAR, IMUs, GPS), Robot Simulation.

### Software & Tools

Linux Systems, Git, MATLAB, LabVIEW, Windows, MS Office, 3D Printing (Bambu Lab X1 Carbon), Docker, Shell Scripting, GitHub, Virtual Machines, Data Structures.

## EDUCATION

### Bachelor of Science in Computer Engineering

#### University of Houston Clear Lake

📅 2022 - 2025 📍 Houston, TX

### Associate of Science in Pre-Engineering

#### Lee College

📅 2019 - 2021 📍 Baytown, TX

GPA

3.3 / 4.0

### Associate of Science in General Studies

#### Lee College

📅 2019 - 2021 📍 Baytown, TX

## REFERENCES

### Shawn Way

• Director of Engineering, Empower Pharmacy.





• Chemical Engineer with 25+ years in pharmaceutical and biotechnology industries.

• Email: [Shawnway@yahoo.com](mailto:Shawnway@yahoo.com)

• Phone: 832-403-0414

• Based in Pearland, TX

# STRENGTHS

-  Oral and Written Communication
-  Reliable and Consistent
-  Committed to Lifelong Learning
-  Team Building

# CERTIFICATION

Automation & Autonomy of Mobile Robots  
University of Houston - Clear Lake (UHCL) | Awarded  
April 2025