MATTHEW GARCIA

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

📞 832-420-4378 @ garciamatthew176@gmail.com 🔗 linkedin 🔗 github 📍 Baytown, TX

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, Version Control Workflows.

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

STRENGTHS

💬 **Oral and Written Communication**

✔️ **Reliable and Consistent**

📘 **Committed to Lifelong Learning**

🧍 **Team Building**

REFERENCES

Shawn Way

• Director of Engineering, Empower Pharmacy.

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

• Email: Shawnway@yahoo.com

• Phone: 832-403-0414

• Based in Pearland, TX

CERTIFICATION

Automation & Autonomy of Mobile Robots

University of Houston - Clear Lake (UHCL) | Awarded April 2025