JAIRO PONCE

Embedded Systems Engineer

+639678446422 | hairoponcebersamina@gmail.com | Cebu City, Cebu PH | jairo_ponce.github.io

CAREER SUMMARY

Embedded Systems Engineer with 2+ years of experience in industrial automation and real-time data monitoring. Skilled in designing scalable embedded solutions, integrating hardware with software, and optimizing communication protocols for reliable performance. Known for adaptability, problem-solving, and delivering efficient automation systems that enhance operational control and efficiency.

EXPERTISE

Embedded Systems	**Industrial Automation**	**Web Development**
Firmware Development	**SCADA (Control & Monitoring)**	**Machine Learning**
PCB Design	**Internet of Things (IoT)**	**Analytic Reasoning**

TECHNICAL SKILLS

- **Automation** | Languages: C/C++, JavaScript, SQL (MySQL), QCGI (C based interpreter), Python
- **Hardware & Embedded**: PCB Design, Firmware Development, Industrial Communication Protocols.
- **IoT & Backend**: Socket Programming (TCP/IP, Unix, WebSocket, MQTT), API Design, SCADA Systems
- **Environment & Tools**: Linux, RTOS, VIM, SSH, CRON, VS Code, MobaXterm, MQTTX,Chart.js, Git, GitHub

PROFESSIONAL EXPERIENCE

Embedded Systems Engineer – Full Time   **Aug 2023 - Present**
Upland Stock Feeds Inc - Mandaue City, Cebu PH

- Designed and deployed smart automation systems using ESP32, Raspberry Pi, and communication protocols for industrial sensors, machines and devices.
- Built SCADA-style dashboards and responsive web UIs for real-time monitoring and control.
- Implemented motor and pneumatic control (VFDs, servo drives, softstarters, pnuematic solenoid valves) for automated systems.
- Integrated sensors, devices, and networks (TCP/UDP/MQTT) with hands-on debugging of hardware and software.
- Developed backend systems and APIs for real-time communication, RTOS-based control, and seamless device–web integration.
- Developed advanced firmware versioning and management system, ensuring structured updates, rollback capability, and reliable deployment across devices.

EDUCATION

Bachelor of Science in Computer Engineering   **Aug 2019 - Jul 2023**
Bohol Island State University - Tagbilaran City, Bohol PH

- Thesis on "Automatic Waste Segregator Using Machine Learning".
- Designed an intelligent waste sorting system that uses camera input and sensor data to classify materials. The system leverages machine learning to improve accuracy and efficiency in environmental waste management.