

Sajeevan Veeriah

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Professional Summary

Multidisciplinary Mechatronics Engineer with expertise across robotics, automation, embedded systems, and control engineering. Experienced in R&D, developing intelligent systems that combine hardware, sensors, and AI driven analytics for real world performance improvement. Skilled in embedded firmware (ESP32, STM32, FreeRTOS), robotics integration (ROS 2, SLAM, sensor fusion, motion control), industrial automation (PLC, SCADA, HMI), and data pipelines (IoT, InfluxDB, Grafana, Python, MATLAB). Passionate about bridging engineering and intelligence to create adaptive, efficient, and safe automated systems.

Core Skills

Industrial Automation: PLC (Siemens S7, TIA Portal, WinCC, PCS7), SCADA, HMI, MES, Process Control, GxP, cGMP
Controls and Robotics: ROS 2, SLAM, motion planning, PID tuning, Kalman filtering, state estimation, system identification
Embedded and Firmware: ESP32, STM32, FreeRTOS, UART, I2C, SPI, ADC, PWM, motor control
Automotive and Validation: AVL systems, CAN FD, CANoe, CANalyzer, ADAS, OTA, FSIV, ADR/EURO (ICE/EV/PHEV)
Software and Programming: C and C++, Python, MATLAB and Simulink, LabVIEW, MS Office
Electronics and PCB: Altium, KiCad, power and signal conditioning, oscilloscope, logic analyser
IoT and Data: LoRaWAN and ChirpStack, MQTT, InfluxDB, Grafana, REST, edge compute
Mechanical and CAD: SolidWorks, Fusion 360, FEA, 3D printing
Quality and Safety: ISO, IEC, AS/NZS, EN, ASME, ADR, EURO, FMEA, ITP and MDR, OH&S, Lean Six Sigma, JIRA, Agile, KAIZEN, RCA & CI

Experience

Automation Software Engineer

JAG Process Solutions | Brunswick, VIC | Jan 2026 to Present

- Implementing process automation including SCADA and MES solutions for pharmaceutical industry clients.
- Developing and maintaining PLC programs using Siemens S7, TIA Portal, and PCS7 platforms.
- Programming PLC, HMI, and SCADA systems, ensuring cGMP compliance and system lifecycle documentation.
- Supporting 1st and 2nd level technical support, conducting plant user training, and maintaining HSE standards.

ADAS Engineer (Product Development, Test Engineer)

Ford Motor Company Australia (via Invenio) | Ford Proving Ground, Little River, VIC | Nov 2025 to Present

- Coordinating vehicle software updates, instrumentation, and sign off testing at Ford Proving Ground for T6 Ranger/Everest Program.
- Leading feature vehicle and breadboard testing for FSIV (Features Software Integration and Validation) team to support feature signoff.
- Performing regression testing for running change and OTA workstreams, data acquisition and validation for production issues.
- Raising JIRAs with support data, acting as Feature team SPOC in T&D PAT forum, following Ford OH&S and High Voltage guidelines.

Technical Assistant

ABMARC | Geelong, VIC | Jul 2024 to Aug 2025

- Executed emissions and compliance testing on approximately 2 vehicles per week, aligned to ADR and EURO standards, including ADAS testing.
- Operated AVL and CAN based test instrumentation for high fidelity acquisition, contributing to 89 percent first pass success rate across 100 vehicle batch.
- Authored compliance and quality documentation supporting ADR and EURO validation and regulatory submissions.

IoT Projects Administrator

DuxTel Pty Ltd | Geelong, VIC | Feb 2024 to Jun 2024

- Designed and deployed 5 end to end IoT systems integrating sensors, gateways, and data pipelines for reliable connectivity.
- Developed real time dashboards in InfluxDB and Grafana, configured and integrated 20+ LoRaWAN devices.
- Built an ESP32 based GPS and environmental sensing tracker, shortening prototype lead time with modular firmware reuse.

Production Team and Cellar Hand

IDL | Geelong, VIC | Aug 2022 to Feb 2024

- Operated and maintained automated winery systems processing 10000 cans per hour and 50 kegs per hour, maintaining AS/NZS safety compliance with zero incidents.
- Performed quality and chemical testing with 100 percent batch traceability, maintained 5S compliant workspace for audit readiness.

Undergraduate Engineer and QA Assistant

Thornton Engineering | Geelong, VIC | Mar 2018 to Mar 2020

- Executed QA inspections for structural fabrication projects, developed ITPs and MDRs improving traceability and audit readiness.

Projects

Clinical Ataxia Assessment Device

ESP32 device with IMU, time of flight, Hall and magnetometer sensors for clinical motion tracking with approximately plus or minus 2 mm precision, documented to IEC 60601 and ISO 13485 expectations. MATLAB analytics and Android app for real time assessment and logging.

Autonomous Navigation Rover

ROS 2 stack with LiDAR, IMU, and depth camera for SLAM and sensor fusion. OpenCV nodes for perception, localisation stability improvement via Kalman tuning, and control optimisation on varied terrain.

Education

Bachelor of Mechatronics Engineering, Honours

Deakin University, Geelong VIC | 2025

Higher National Diploma, Mechatronics, Robotics and Automation

Cardiff Metropolitan University, UK | 2016

Professional Memberships and Standards Training

Engineers Australia Student Member | ISO, IEC, AS/NZS, EN and ASME exposure | ADR/EURO training | IoT and Automation | Lean Six Sigma Foundation | JIRA, Agile, KAIZEN Foundations | RCA & CI

Leadership

Past President of Rotaract Club of Colombo East | Sri Lanka National Hockey Captain, Under 19

Interests

Industrial automation and PLCs, robotics and autonomous systems, research & development, embedded firmware and real time control, mechatronic system integration, sensor fusion and perception, product design and rapid prototyping