Sajan Saji

Trivandrum, Kerala | sajansaji2002@gmail.com | +91 9207118784 | sajansaji.is-a.dev

linkedin.com/in/sajansaji | github.com/sajansaji

Professional Summary

Software Development Engineer in Automotive R&D specializing in embedded Linux, ADAS, and Driver Monitoring Systems. Proficient in C/C++, Python, AI inference workflows, and system integration.

Technical Proficiency

Languages: C++, Python, C

AI/ML: Model Training, Optimization, Edge AI Inference

Embedded/Linux: Bash, Yocto, BitBake, Systemd, Custom Linux Builds

Tools: Git, Gerrit, GitHub, Jira, Confluence, Docker, GHCR

Protocols: SOME/IP

Work Experience

Software Development Engineer | UST – Trivandrum, Kerala   Feb 2025 – Present

- Developed **Driver Monitoring System (DMS)** on embedded Linux achieving 97% driver state detection accuracy.
- Implemented **SOME/IP**-based event logging and **FTP**-based secure video transmission.
- Developed **ADAS** object detection pipeline with optimized inference workflows for embedded deployment.
- Gained practical understanding of **ISP** and **DCC** configuration for image quality optimization.
- Optimized **CPU/GPU** allocation to support concurrent ADAS and DMS execution on a single EVM under real-time constraints.
- Managed **Yocto** builds and customized Linux images, working with U-Boot configurations, uEnv.txt, and systemd services for embedded deployment.

Software Development Engineer Intern | UST – Trivandrum, Kerala   Aug 2024 – Feb 2025

- Gained hands-on experience developing basic **Android applications** using Kotlin.
- Interfaced **Arduino** hardware for embedded validation and peripheral testing.
- Built and evaluated basic **machine learning models** for image classification tasks.

Projects

Embedded OS Flashing CLI Tool

- Developed a Bash-based CLI utility to automate flashing of custom Yocto Linux images (.wic, .wic.xz) onto embedded memory devices.
- Reduced deployment time and minimized manual flashing errors during hardware validation cycles.

PyDelog – Python Logging Utility (Published on PyPI)

- Published a lightweight Python logging utility package on PyPI to simplify structured logging workflows.
- Implemented modular logging features with configurable output formats and levels.
- Available on PyPI: https://pypi.org/project/pydelog

Education

B.Tech in Computer Science and Engineering | APJ Kerala Technological University
Nov 2020 – June 2024 | GPA: 7.46/10