HERIAN PERDANA
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Summary

Electrical Engineering graduate from the University of Bengkulu (GPA 3.51) with professional experience in industrial operations and embedded systems development. Skilled in firmware programming, Linux-based system integration, and AI-powered edge computing. Actively involved in DevSecOps practices and secure CI/CD pipeline development. Enthusiastic about combining embedded technology with AI to create intelligent, efficient, and secure systems.

Work Experience

Company: Aranus Technology
Position (Feb 2025 – Dec 2025): Embedded System Engineer

- Develop firmware for embedded devices using C, C++, and Python.
- Implement real-time algorithms in RTOS-based systems.
- Work with MCU/MPU such as STM32, ESP32, Raspberry Pi, Rockchip, and Renesas RZ/V2H.
- Build custom Yocto Linux images for embedded platforms.
- Apply AI and deep learning models for embedded vision and intelligent IoT applications.

Company: PT. PowerChina Gansu Energy Investment Company Limited
Position (Aug 2023 – Jan 2025): Coal Inspector, Operation Division

- Conducted routine inspections on coal distribution equipment to ensure operational reliability.
- Supervised cleaning and maintenance staff in performing technical operations.
- Manually operated and monitored coal distribution support equipment.

Portfolio

DevSecOps Final Project – Vulnerable Bank Security Pipeline (Sep 2025)

- Designed and implemented a CI/CD pipeline integrating DAST, SAST, Trivy, and Secret Scanning for vulnerability detection, Kubernetes Security.
- Automated security testing using GitHub Actions and containerized workflows.

Embedded AI Vision System

- Developed a real-time object detection system using YOLOv5 on RZ/V2H and Raspberry Pi.
- Deployed deep learning inference with ONNX Runtime on embedded Linux for edge AI processing.

Custom Yocto Linux Build for Edge Device

- Built a minimal and optimized Yocto Linux image for AI-based embedded devices.
- Integrated kernel modules, drivers, and hardware interfaces to support computer vision workloads.

IoT Smart Cage System (ESP32 & MQTT)

- Designed and soldered a custom PCB for the ESP32, ensuring hardware reliability.
- Developed robust firmware with MQTT protocol for real-time data communication to a server.
- Integrated various sensors (temperature, humidity) and actuators for automated environmental control.

Certification & Training

Company (Apr 2025): PT. Enigma Cipta Humanika
Specialization: DevSecOps Bootcamp (Enigma Camp 2.0)

- Mastered CI/CD security automation with DAST, SAST, Trivy, and Secret Scanning.
- Implemented security workflows in GitHub and container-based environments.

SKILLS

- C / C++ / MicroPython / Python
- Embedded Systems (STM32, ESP32, Raspberry Pi, Rockchip, Renesas RZ/V2H)
- Yocto Linux Build System
- RTOS and Firmware Development
- AI & Deep Learning on Edge Devices (YOLO, ONNX Runtime)
- DevSecOps (DAST, SAST, Trivy, Secret Scanning)
- GitHub Actions / Docker / Linux
- Language English - Intermediate

EDUCATION

University (Location) Bengkulu University (Bengkulu, Indonesia)
Major (Year) Electrical Engineering (2020 – 2024)
GPA Score 3.51/4.00