

FIRYAN SYAH

Software Engineer | Embedded System Enthusiast

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PROFIL

Software Engineer berpengalaman dalam Web Development dan Embedded System. Memiliki keahlian membangun aplikasi full-stack (MongoDB, Express, Node.js, React) dan Embedded System (Arduino, ESP32) dengan fokus pada solusi otomasi.

MAGANG & PENGALAMAN

Freelance | Embedded System - Solar Panel Controller

Des 2025 - Jan 2026

UIN Ar-Raniry Banda Aceh

- Merancang dan mengimplementasikan sistem Digital Twin IoT untuk monitoring panel surya real-time (ESP32, Python) dengan latency di bawah 2 detik, mengintegrasikan 8 panel surya untuk lebih dari 200 pengguna (mahasiswa praktikum)
- Mengintegrasikan akuisisi data sensor ke database real-time dengan dashboard visualization untuk monitoring performa dan deteksi anomali sistem kelistrikan

Magang | Automation & IoT - Hidroponic Automation System

Sep 2025 - Nov 2025

BPVP (Balai Pelatihan Vokasi dan Produktivitas)

- Membangun sistem monitoring otomatis hidroponik dengan kontrol nutrisi dan manajemen suhu, mengurangi intervensi manual hingga 95% dan meningkatkan efisiensi resource 40%

PORTOFOLIO PROYEK

Digital Twin - Sistem Monitoring & Kontrol Panel Surya

Tech Stack: Python, Arduino

Sistem IoT untuk mengukur tegangan, arus, dan daya pada konfigurasi panel surya seri-paralel dengan dashboard real-time dan kemampuan kontrol switching jarak jauh.

WedLX - Platform Undangan Pernikahan Digital

Tech Stack: HTML5, CSS3, JavaScript

Website undangan pernikahan full-stack dengan tracking RSVP, integrasi Google Maps, dan galeri foto. Fully mobile-optimized.

Demo: <https://firransyah23.github.io/Wedlx/>

PENDIDIKAN

S1 Pendidikan Teknik Elektro | IPK: 3.5

2021 - 2025

Universitas Islam Negeri (UIN) Ar-Raniry Banda Aceh

Fokus: Elektronika, Sistem Kontrol, IoT, & Pemrograman Mikrokontroler

Rekayasa Perangkat Lunak

2018 - 2021

SMKN 5 Telkom Banda Aceh

Fokus: Web Development, Software Engineering

KOMPETENSI TEKNIK

Frontend Development: React, Next.js, Vue, Tailwind CSS, SEO

Backend Development: Node.js, Express.js, Laravel

Mobile Development: React Native, Offline-First Application

AI & Automation: AI-Assisted Development

Embedded Systems: Arduino, ESP32, C/C++, IoT Integration

Database Management: MySQL, SQLite, MongoDB

Cloud & Deployment: AWS, Google Cloud, Cloudflare, Cloudinary, Vercel

System Design: Scalable Architecture, Performance Optimization, System Integration, Responsive Design

Other Tools: Claude Code, Open Code, Figma, Canva, Postman, WordPress

KOMPETENSI NON-TEKNIS

Product & Project Management: Requirement Analysis, Planning, Time Estimation, Budget Awareness, Task Distribution, Delivery Tracking

Technical Leadership: Expanded Ownership, Team Support, Knowledge Sharing, Business Continuity, Technical Decision-Making

Collaboration & Communication: Agile Methodology, Cross-Functional Collaboration, Stakeholder Communication, Technical Documentation

Problem Solving: Root Cause Analysis, Incident Handling, Process Improvement, System Optimization

R&D and Innovation: Emerging Technology Evaluation, Proof-of-Concept Development, AI Adoption, Continuous Improvement

SERTIFIKASI

- Sertifikat Kompetensi Otomasi & IoT - Sistem Hidroponik Otomatis (2025)
- Belajar Web Development Front-End - Dicoding (2024)