

ASLAM ROSUL AHMAD

INFORMATICS ENGINEERING STUDENT | WEB DEVELOPER & CYBER SECURITY ENTHUSIAST

Semarang, Jawa Tengah | nvrsndrmrx@gmail.com | [LinkedIn](#) | [Github](#) | [Portofolio](#)

PROFESSIONAL SUMMARY

Informatics Engineering student with strong skills in full stack web and full stack mobile application development using Flutter and modern web technologies. Experienced in API integration, UI/UX optimization, and collaborative project development. Highly interested in cyber security and penetration testing, with hands-on self-learning experience and a solid academic record (Current GPA: 3.75).

EDUCATION

State Polytechnic of Malang

- Informatics Engineering

Jun 2023 - Present

State Islamic Senior High School 1 Surakarta

- Natural Science

Jul 2020 - May 2023

PROJECTS

AgileOS – Event-Driven ERP-BPM Orchestrator | Full Stack Web & Mobile
App Developer

Apr 2026 - Present

Personal Project

- Architected a high-performance BPM engine using Golang and NATS Messaging to handle asynchronous business process orchestration with an event-driven approach.
- Implemented an Immutable Audit Trail and automated logging system to ensure data integrity and compliance with e-governance standards.
- Developed a Predictive Analytics Microservice using Python to forecast task completion bottlenecks, integrated via REST API to the main dashboard.
- Designed a multi-tenant database schema using SurrealDB (Graph/Document) to manage complex relationships between users, divisions, and dynamic workflows.
- Secured the infrastructure by implementing JWT-based authentication, Rate Limiting, and automated database backups, deployed via Docker on Microsoft Azure.
- Tech Stack: Go, Next.js, Python, SurrealDB, NATS, Docker, Azure, TypeScript.

Adaptive Traffic Monitoring System – Aerial Command | Full Stack Web
Developer

Apr 2026 - Present

State Polytechnic of Malang

- Collaborated with a team to build a smart IoT-based traffic monitoring system using Next.js 14, TypeScript, and Azure Cosmos DB
- Integrated ESP32 sensors for real-time vehicle detection and adaptive traffic light control
- Built real-time dashboard monitoring 4+ intersections with data visualization and analytics
- Implemented multi-role user management (admin & operator), incident reporting, and real-time notifications
- Integrated Azure IoT Hub for device-to-cloud communication
- Tech: Next.js, TypeScript, React, Azure Cosmos DB, ESP32, IoT

PhotoLabKu – Photo Kiosk & Dashboard Management System | Full Stack **Mar 2026 - Apr 2026**
Web & Desktop App Developer
Personal Project

- Built a complete photo kiosk system with Electron desktop app and Next.js web dashboard
- Kiosk features: camera capture, filter & frame selection (including GIF), print package selection, Midtrans payment integration, QR code for digital download
- Dashboard features: kiosk & branch management, frame/package/voucher management, sales statistics with charts, system configuration
- Tech: Electron, Next.js, React, TypeScript, Supabase, Midtrans Payment Gateway

FixIT – Campus Facility Damage Reporting System | Full Stack Web **Feb 2025 - Jun 2025**
Developer
State Polytechnic of Malang

- Collaborated with a team of students to develop a web-based campus facility reporting system for the Department of Information Technology, Politeknik Negeri Malang
- Built the system using Laravel 10 and MySQL with a multi-role authentication system (admin, lecturers, students, staff, technicians, and facility management)
- Implemented damage reporting features with photo uploads and status tracking
- Applied a decision support system to prioritize facility repairs
- Developed reporting and statistical dashboards for facility monitoring

Leafy — Educational Mobile App for Leaf Venation Classification | Mobile **Sep 2025 - Dec 2025**
App Developer
State Polytechnic of Malang

- Developed an interactive educational mobile app as a Project-Based Learning project, integrating a custom ML model for leaf venation classification
- Built a CNN-based TensorFlow model to classify 4 types of leaf venation (parallel, pinnate, palmate, arcuate) with image preprocessing and prediction functions
- Created a FastAPI backend with RESTful endpoints for image upload, model inference, and response handling, including CORS support for mobile app integration
- Integrated the API into the Flutter app for real-time image scanning and classification, enabling seamless user experience from camera capture to results
- Tech: Flutter, FastAPI, TensorFlow, NumPy, Pillow, Firebase (Authentication, Firestore, Storage), Camera, Image Picker, Flutter TTS

ADDITIONAL INFORMATION

Languages:

- Indonesian (Fluent)
- English (Professional Proficiency)
- Javanese (Fluent)

Technical Skills:

- Programming: TypeScript, PHP, Python, JavaScript, Java, Go (Golang)
- Frontend Development: React.js, Next.js, Electron, Flutter
- Backend Development: Laravel, FastAPI, Go, Node.js (Next.js)
- Database: MySQL, PostgreSQL, Supabase, Azure Cosmos DB
- Cloud & Tools: Docker, Microsoft Azure, GitHub, VS Code, Google Colab
- UI/UX Tools: Figma, Canva
- Security Tools: Burp Suite (Basic)