

Muhamad Aldy Nugroho

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🗣 English, Indonesian

Experience

PT Phase Delta Control - Software Engineer Intern

Aug 2025 – Dec 2025

- Developed a web-based monitoring dashboard using React JS, Vite, and Tailwind CSS to visualize real-time data from Air Handling Unit (AHU), Overall Equipment Effectiveness (OEE), and Energy Management System (EMS) modules via HTTP polling.
- Created a WhatsApp Bot using Node.js and the Baileys library to provide an alternative, mobile-friendly interface for remote sensor monitoring.
- Integrated Google Gemini LLM (gemini-2.5-flash) with the WhatsApp Bot via the Model Context Protocol (MCP), enabling natural language queries and Voice Note processing for real-time IoT device control and data retrieval.
- Implemented a client-side early warning system to automatically trigger visual and audio alarms when liquid levels exceed configurable safe thresholds.
- Completed the internship program with a final grade of A (Istimewa/Outstanding).

PT Industri Kereta Api (Persero) - Full Stack Developer

Jan 2025 – Jun 2025

- Developed a REST API to integrate with an existing internal website, automating the conversion of multiple CAD (Computer-Aided Drawing) files into a consolidated Microsoft Excel document.
- Built a full-stack Retrieval Augmented Generation (RAG) application to help employees efficiently access internal information using company documents.

Agile Teknik PENS - Mobile & Frontend Developer at ReMi

Mar 2024 – Nov 2024

- Developed and launched ReMi, a reminder application with both mobile and web versions, enabling users to set reminders with alarm notifications for improved productivity and organization.
 - Built the mobile application using Flutter, delivering a seamless cross-platform experience on both iOS and Android, with a focus on performance, intuitive navigation, and responsive design.
 - Developed the web application using React.js, creating a streamlined and accessible interface for users on desktop and mobile browsers.
 - Implemented alarm and notification features to ensure timely reminders, integrating local and push notifications on the mobile app and browser notifications on the web app.
 - Collaborated with designers to deliver a cohesive and user-friendly interface across both platforms, enhancing the app's usability and engagement.
 - Managed state and data synchronization to ensure reminders and user settings were consistently updated across mobile and web.
 - Tested and optimized both versions for performance and stability, resolving cross-platform compatibility issues and enhancing user experience across devices.
 - Utilized Agile methodology to facilitate continuous delivery, allowing for iterative improvements, quick adaptations, and regular feedback throughout the development process.
 - Incorporated analytics tracking to monitor user engagement and app usage, leveraging insights to drive future feature updates and improve user retention.
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Skills

Frontend: HTML, CSS, JavaScript, TypeScript, React.js, Next.js, Tailwind CSS, React Three Fiber, Vite

Backend: Node.js, Nest.js, Prisma ORM, Go, Echo, GORM, JWT Auth

Mobile: Dart, Flutter

Database: MySQL, PostgreSQL, MongoDB

Other Programming Languages: C, Java, Python

Soft Skills: Communication, Teamwork, Adaptability, Agile Methodology

Version Control: Git, GitHub

Containerization: Docker, Docker Compose

Projects

IoT Monitoring Dashboard & AI WhatsApp Bot

A monitoring system developed during an internship at PT Phase Delta Control to track AHU, OEE, and EMS modules. The project features a React JS web dashboard for real-time visualization and a WhatsApp Bot powered by Google Gemini and Model Context Protocol (MCP) for natural language and voice-based data retrieval.

ReMi: Remind Me - Mobile

ReMi stands for Remind Me, a college management application for students. With Remi, students can record tasks or activities that they would like to be reminded of. With an alarm as the main feature, ReMi is designed to help students who often forget things to do because of the many activities or agendas that exist.

ReMi: Remind Me - Website

ReMi stands for Remind Me, a college management application for students. With Remi, students can record tasks or activities that they would like to be reminded of. With an alarm as the main feature, ReMi is designed to help students who often forget things to do because of the many activities or agendas that exist.

Simple Task Management API

A RESTful API for managing tasks, built using Go with Echo, GORM, JWT for authentication, and PostgreSQL as the database. This project also includes auto-generated Swagger documentation.

Simple Real-Time Chat Application

This project is a real-time chat application that demonstrates the use of several modern web technologies for both the backend and frontend. The application supports HTTP-based communication as well as WebSocket for real-time messaging.

Simple 3D Car Render on Web

One of my first projects when exploring 3D rendering on websites using React Three Fiber.

Retrieval Augmented Generation App

A project developed during an internship at PT INKA (Persero), aimed at facilitating internal information search using AI and company documents.

Certificates

PENS English Proficiency Test (PEPT)

PENS Language and Culture Center, Issued Apr 2026 – Expires Apr 2028, Overall Score: 520, Credential ID 1000/DST/PL14/TA.00.07.05/IV/2026

Sertifikat Kompetensi – Software Quality Control Tester

Badan Nasional Sertifikasi Profesi (BNSP), Issued Nov 2024 – Expires Nov 2027, Credential ID No. 62021 2519.02 6 0000186 2024

Belajar Back-End Pemula dengan JavaScript

Dicoding Academy, Issued Oct 2024 – Expires Oct 2027, Credential ID GRX54QKRKP0M

Cloud Practitioner Essentials (Belajar Dasar AWS Cloud)

Dicoding Academy, Issued Oct 2024 – Expires Oct 2027, Credential ID 07Z6403RMPQR

Belajar Dasar AI

Dicoding Academy, Issued Oct 2024 – Expires Oct 2027, Credential ID 0LZ042LJNP65

Belajar Dasar Pemrograman JavaScript

Dicoding Academy, Issued Oct 2024 – Expires Oct 2027, Credential ID JLX14WOM5X72

Basic Training Safety Induction, Keamanan, Tata Tertib dan Pengenalan Produk

PT INKA, Issued Feb 2025, Credential ID NO.BS-062/DIKLAT-HC&GA/II/2025

Praktek Kerja Industri

PT INKA, Issued Jun 2025, Credential ID NO.116/SRTFKP/222/INKA/2025

Education

Politeknik Elektronika Negeri Surabaya

Applied Bachelor Degree in Informatics Engineering

Jul 2022 – Present

Current GPA: 3.58 / 4.00

SMA Negeri 1 Nganjuk

Science Major

Jul 2019 – Jun 2022