



Haidar Aldy Eka Nugraha

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Informatics graduate experienced in translating complex operational requirements into integrated information systems, end-to-end data pipelines, and real-time monitoring dashboards. Skilled in system architecture design, database management, cross-functional collaboration, and bridging technical implementation with business objectives

EDUCATION

Universitas Muhammadiyah Malang

Oct 2020 - May 2024

Bachelor of Informatics

- Publication of Sinta 2 Article in JITEKI (Journal of Electrical Engineering, Computer Science, and Informatics) titled Students Final Academic Score Prediction Using Boosting Regression Algorithms (2024)
- The Runner Up of Best Final Project Team of Data Science: Machine Learning Specialization in Rakamin ACADEMY (2023)

WORK & PROJECT EXPERIENCE

PT INKA

Research and Development

Apr 2025 - Now

- Analyze operational monitoring requirements with engineering stakeholders and translated them into technical specifications and real-time data pipelines (Modbus/MQTT/UDP).
- Develop and manage a web-based monitoring dashboard using Next.js and React to display operational data in real-time.
- Conduct end-to-end system testing, operational data validation, and troubleshooting on onboard-to-server data pipelines to ensure optimal system performance and zero data loss.

Yamaha Multiguna Malang Motor

Jun 2023 - Aug 2023

Internship Data Analyst

- Collect customer data from the dealer system, including daily transactions and customer information.
- Analyze sales data to identify emerging trends and patterns, as well as opportunities for sales improvement.
- Segment customers based on demographic data and purchasing behavior to optimize marketing strategies.

PROJECT

Clinic Queue & Management

Sept 2026 - Oct 2026

Web Application

- Analyzed healthcare administration workflows to design an integrated clinic management system covering patient registration, electronic medical records (EMR), doctor scheduling, and queue management.

POS & Ordering System

Sept 2026 - Oct 2026

Web Application

- Designed system architecture and relational database schemas for a smart Point of Sale (POS) application, integrating real-time order ID tracking, automated inventory management, and an order queue dashboard.

IoT Data Monitoring

Sept 2026 - Oct 2026

Web Application

- Architected a scalable sensor data monitoring platform on AWS infrastructure, defining data stream pipelines, system logging mechanisms, and log export features for operational analysis.

Tech Office System

Sept 2026 - Oct 2026

Web Application

- Digitized internal departmental workflows by designing a document management platform that streamlines technical document routing, multi-level approval processes, and administrative tracking.

Fleet Monitoring System (Real-Time Train Dashboard) - Frontend Developer

Oct 2025 - Mar 2026

PT INKA (PERSERO)

- Designed technical specifications and interactive UI/UX in Next.js/React to visualize critical train parameters, including speed, brake pressure, powering status, and real-time fault indicators
- Integrated multi-source telemetry data (UDP, Modbus, MQTT) into a centralized web dashboard and conducted functional testing to ensure responsive real-time monitoring.
- Conducted end-to-end system testing, operational data validation, and troubleshooting on onboard-to-server data pipelines to ensure optimal system performance and zero data loss.

TCMS & Bogie Data Acquisition System - IoT / Data Integration Developer

Apr 2025 - Sep 2025

PT INKA (PERSERO)

- Developing a data acquisition system using Python to read and process operational parameters from TCMS and bogie systems via Modbus protocol in real time.
- Processing, validating, and structuring operational data before sending it to the server using the MQTT protocol for centralised monitoring and analysis.
- Building an end-to-end data pipeline from onboard devices to the server to support a stable, accurate, and real-time train monitoring system.

CCTV Tunneling & Web Monitoring Integration - IoT Integration Developer

Aug 2025 - Sep 2025

PT INKA (PERSERO)

- Integrating CCTV systems from NVR devices and configuring tunnelling so that cameras can be accessed securely online.
- Managing network connectivity and ensuring stable remote access for remote monitoring needs.
- Developing a Next.js-based monitoring display to show live CCTV streams in an integrated web dashboard.

SKILLS

- System Analysis & QA: Requirement Analysis, Technical Specification, Process Modeling, System Testing & QA, Data Validation & Logging
- Programming & Integration: JavaScript, TypeScript, Python, React.js, Next.js, REST API, Cloud & IoT (AWS, MQTT, Modbus)
- Database & Tools: PostgreSQL, SQLite, Prisma ORM, Database Design (ERD), API Optimization, Git.
- Soft Skills: Analytical Thinking, Problem Solving, Cross-Team Collaboration, Technical & Business Communication.

ORGANISATION EXPERIENCE

PMM (Pengabdian Masyarakat oleh Mahasiswa)

Aug 2022 - Sep 2022

Coordinator

- Coordinate community service activities at the Darul Ikhlas Orphanage, including planning and implementing programs
- Oversee the creation of a website application for the Darul Ikhlas Orphanage and provide technical assistance to orphanage staff and students
- Responsible for the procurement and dissemination of appropriate technology, including organizing competitions and training