

# MUHAMMAD DAFFA RAIHAN

Yogyakarta, Indonesia • +6285174369313 • daffaraihan2004.work@gmail.com  
daffaraihan.vercel.app

## SUMMARY

Full-stack developer with strong experience in building scalable web applications and backend systems. Proven track record in delivering end-to-end solutions, including HalalMate (an award-winning AI-powered application) and the IMUII automation platform. Proficient in Golang, Node.js, and React, with a focus on clean architecture, maintainability, and performance. Experienced in designing and delivering production-ready systems from concept to deployment, with an emphasis on reliability and user experience.

## SKILLS

**Backend:** Golang, Node.js (NestJS, Express)

**Frontend:** React, Vite, Tailwind CSS, HTML/CSS

**Mobile Development:** Flutter, Jetpack Compose

**Databases & Caching:** PostgreSQL, MySQL,

Redis

**AI & Data Integration:** OpenAI API, OCR, Web Scraping, XAI Integration

**DevOps & Tools:** VPS, Docker, Railway, Git, Postman

## PROJECTS

### Founder & Technical Architect, IMUII

Des 2025 - Mar 2026

- Live Platform: <https://imuii.id> | Management Portal: <https://portal.imuii.id>
- Architected and built IMUII, an end-to-end deployment automation platform supporting **45** projects with an **82%** successful deployment rate across multiple environments.
- Designed Go-based backend services and CLI tooling enabling one-command project initialization, automated CI/CD pipeline configuration, and environment provisioning.
- Implemented GitHub repository automation, zero-config domain provisioning, and real-time deployment monitoring for **47** active subdomains via a centralized management portal.
- Ensured infrastructure efficiency and reliability through optimized resource management, maintaining low CPU usage (**~19%**) under active deployment workloads.

### Full Stack Mobile Developer, HalalMate

Feb 2025 - Jan 2026

- Developed HalalMate, an AI-powered mobile application to assist Muslim travelers in verifying halal food options by reducing language barriers, technical ingredient codes, and interpretation complexity.
- Built Golang-based backend services to aggregate and process restaurant and product data, including automated data extraction from Google Maps using ChromeDP.
- Implemented an AI-driven halal detection pipeline using OCR and OpenAI, achieving **93%** classification accuracy with **100%** recall (zero false-negative cases), ensuring reliable halal verification.
- Developed the Flutter mobile application with location-based search, map integration, and filtering features to enhance user experience in discovering nearby halal options.

### Backend Developer, KeepUp

Aug 2024 - Jun 2025

- Developed backend services for a faculty-led mental health screening research project implemented at Universitas Islam Indonesia, supporting **200+** student users.
- Designed and implemented RESTful APIs using NestJS, PostgreSQL, and Redis to manage questionnaires, process screening results, and handle concurrent user access.
- Implemented role-based authentication and authorization to secure sensitive mental health data for administrators and student users.
- Built automated reporting features generating PDF and Excel outputs, integrating OpenAI to produce comprehensive and interpretable mental health assessment reports.

### Back-End Developer, TikaTiko

Sep 2024 - Nov 2024

- Developed a backend system to manage laboratory assistant attendance and automate weekly recapitulation for informatics laboratories.
- Designed and implemented database schemas to store attendance records, schedules, and reporting data in a structured and reliable manner.
- Integrated a Telegram bot interface to streamline attendance submission and deliver summarized weekly reports to laboratory managers.
- Implemented automated report generation to reduce manual administrative workload and improve data accuracy for laboratory operations.

### Back-End Developer, Nasho

Aug 2024 - Oct 2024

- Developed backend services for an Arabic language learning platform featuring structured learning paths and quiz-based progression.
- Implemented progress tracking and a content lock system that unlocks learning materials only after users complete required quizzes.
- Designed and built RESTful APIs using Express.js and PostgreSQL to support user authentication, learning content delivery, and progress analytics.
- Implemented role-based access for administrators to manage learning materials, quizzes, and curriculum structure.

---

## WORK EXPERIENCE

### Intern Full Stack Web Developer, QBIT

Jan 2026 - Present

- Developed modular backend architecture using NestJS within a monorepo setup, enabling reusable and maintainable service components
- Implemented Retrieval-Augmented Generation (RAG) workflows using n8n to power AI-driven features
- Developed live chat functionalities integrated with AI systems to handle user interactions and automate responses
- Designed and automated document processing workflows, reducing manual effort through AI-powered pipelines

### Full Stack Web Developer, Emica

Jun 2025 - Present

- Developed and maintained full-stack web applications for client-facing products, including a restaurant reservation and analytics system used in production.
- Designed and implemented backend APIs and database schemas using Node.js and PostgreSQL to handle reservations, customer data, and analytics processing.
- Built web interfaces using React to visualize business metrics, including visitor traffic, reservation trends, and customer behavior.
- Implemented WhatsApp booking and analytics features that achieved an **85%** click-to-contact conversion rate and supported **3,900+** reservations from real users.

## Assistant Laboratory on Informatics, Fakultas Teknologi Industri

Sep 2023 - Jan 2026

- Assisted in teaching and mentoring undergraduate students across **7+** classes in core computer science courses, including Programming Logic, Web Development, Algorithms & Data Structures, and Computer Networks & Systems.
- Supported 150+ students by providing hands-on guidance in problem-solving, coding fundamentals, networking concepts, and application development.
- Assisted in lab sessions, assignments, and technical evaluations to ensure students met learning objectives and programming standards.

## Full Stack Mobile Developer, SaveBite

Aug 2024 - Jan 2025

- Developed backend services for a food-related mobile application, enabling data exchange between mobile clients and server-side systems.
- Built RESTful APIs using Node.js and Express to support core application features and data persistence.
- Designed and implemented relational database schemas to support Android application workflows.
- Developed Android mobile features using Jetpack Compose to deliver a modern and responsive user interface.

## Back-End Developer, TEDXUII

May 2024 - Jun 2024

- Developed backend APIs for a web-based ticketing system to manage product listings and order processing.
- Implemented RESTful services using Express.js, PostgreSQL, and Redis to handle transactional workflows.
- Built administrative APIs to manage products and ticket inventory.
- Deployed the backend application on a VPS environment to support production usage.

---

## EDUCATION

### Master of Informatics Engineering

Mar 2026 - Present

Islamic University of Indonesia

- Awarded Research Assistant Scholarship (2026): Conducting advanced research in Explainable AI (XAI) and Data Analytics.
- Focus: Deep Learning, Big Data, and Artificial intelligence

### Bachelor of Informatics Engineering

Aug 2022 - Jan 2026

Islamic University of Indonesia

- **3.97/4.00** GPA
- Member of Programming Study Club, 2023 to 2024
- Member of Google Development Students Club, 2023 to 2024

### High School Diploma

Aug 2019 - Aug 2022

Man Insan Cendekia Tanah Laut

- **88/100** GPA
- Member of Mathematics Club, 2020 to 2021

---

## ACHIEVEMENTS

### **Fully Funded Research Assistant Scholarship (Master's Program)**

**Mar 2026**

Islamic University of Indonesia, Indonesia

- Selected as a research assistant for a fully funded master's program, recognizing strong academic and research potential

### **Gold Pin Award – Highest Distinction (Undergraduate Level)**

**Feb 2026**

Islamic University of Indonesia, Indonesia

- Awarded to the top-performing undergraduate graduate of the period, based on academic excellence and outstanding competition achievements

### **Best Paper Award Automata 2025**

**Dec 2025**

Islamic University of Indonesia, Indonesia

- Paper: An XAI-Based Halal Detection System for Packaged Food Products Integrating Vision Models and Web Retrieval
- Developed an explainable AI (XAI) system for halal detection on packaged food using vision models and web-based information retrieval.

### **Silver Medal on INDES 2025**

**Aug 2025**

UiTM Perak, Malaysia

- Silver Medal – “HalalMate” Mobile App (AI-Based Halal Food Recommender)
  - Built with Flutter and integrated an AI model to recommend halal food options based on user location and preferences.
  - Implemented search filtering, user preferences, and location-based results using Maps API.
  - Developed full AI pipeline: scraped food data, built halal-haram classifier, integrated OCR for label reading, and AI-powered chatbot for user interaction.