

ILHAM MAULANA

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EXECUTIVE SUMMARY

Fresh graduate in Electrical Engineering from Yogyakarta State University with a focus on Control Systems, Computer Engineering, and software development. Experienced in developing microcontroller-based systems, IoT solutions, and PID control, as well as web and cloud application development. Alumni Bangkit Academy 2023 Cloud Computing Learning Path with hands-on experience in implementing cloud-native applications and web development.

EDUCATION

Bachelor of Electrical Engineering, Yogyakarta State University Aug 2021 – Dec 2025

- GPA: 3.75/4.00 - Cum Laude
- Relevant Coursework: Internet of Things, Web and Database Programming, Machine Learning and Modeling, Artificial Intelligence, Process Control System.
- Thesis Title: “Development of a React.js-Based Web Application for Cross-Device File Transfer Using Hand Gesture Recognition with Tensorflow.js”.

INTERNSHIP EXPERIENCE

Production - Electrical System Installation (Finishing), PT. Industri Kereta Api Oct 2024 – Dec 2024

- Installed railway electrical systems including wiring, cable cutting, parallel connections, and cable labeling in accordance with technical standards.
- Installed and protected cable routes on the underframe and coach interiors using manual and electric tools, and conducted installation quality inspections.
- Installed power distribution panels, power outlets, Passenger Information Display System (PIDS), and cable harnesses based on electrical diagrams.
- Performed electrical installation repairs on 612 New Generation train units, including wiring connections, water flush sensors, and running text systems.
- Applied 5R workplace practices to maintain cleanliness, safety, and operational readiness.

Studi Independen Bangkit Academy By Google, GoTo, Traveloka – Distinction Graduate, Cloud Computing Learning Path Aug 2023 – Dec 2023

- Built and deployed cloud-native backend applications using Google Cloud Run and core Google Cloud Platform (GCP) services.
- Developed web and backend applications using JavaScript and Python with a cloud-based architecture.
- Implemented and deployed Machine Learning models into Google Cloud-based backend systems.
- Applied basic DevOps practices, including deployment, environment configuration, and cloud resource management.
- Completed an end-to-end project integrating Cloud Computing, Machine Learning, and Mobile Development, and participated in the Associate Cloud Engineer certification exam.

PROJECT EXPERIENCES

[Dfaalt Code Compiler](#) Website with React Oct 2025 – Nov 2025

- Developed a web-based code editor using React.js (Vite) and TypeScript.
- Integrated Monaco Editor with multi-programming language support, including in-browser code execution and live preview features.

- Implemented a modern and responsive UI using Tailwind CSS and shadcn/ui.

RFID Tag Monitoring Based Website

May 2024 – Jun 2024

- Designed an RFID tag monitoring system using ESP32, RFID-RC522 module, and a buzzer for automated data logging.
- Transmitted and stored tag data to a local server (XAMPP) via WiFi, and managed the database using REST API (CRUD) operations.
- Developed a real-time monitoring website, demonstrating end-to-end IoT integration between hardware, software, and database-driven web applications.

Capstone Project: Culinaryndo Application

Sep 2023 – Dec 2023

- Developed an application to identify and provide information on Indonesian cuisine based on regional origin, main ingredients, and unique characteristics.
- Implemented a Convolutional Neural Network (CNN) using the MobileNet architecture for classification, including model training and evaluation.
- Integrated Cloud Computing services for efficient and scalable application deployment and system management.

DC Motor Speed Control Using Microcontroller

Feb 2023 – May 2023

- Designed and implemented Proportional–Integral–Derivative (PID) control for DC motor speed regulation using Arduino Uno.
- Integrated supporting components such as a speed sensor, I2C LCD, and keypad for system monitoring and parameter input.
- Analyzed control performance using the Arduino IDE Serial Plotter to visualize real-time PID response.

ORGANIZATIONAL EXPERIENCES

Member, INFINITE Information Technology Division, Technology Engineering

Nov 2022 – Dec 2024

- Developed interactive websites using HTML, CSS, and JavaScript, with a focus on layout, interactivity, and user experience.
- Contributed to full-cycle web development, covering both frontend and backend aspects using modern frameworks.
- Built an interactive movie website using React.js as a final project, demonstrating the ability to develop dynamic and responsive web applications.

Member, Swimming Club (UKM Renang)

Nov 2022 – Nov 2023

- Actively participated in swimming training sessions three times a week to maintain physical fitness and endurance.

SKILLS, ACHIEVEMENTS & OTHER EXPERIENCE

- **Bahasa:** Bahasa (Native), English (Fluent)
- **Hard Skills:** Internet of Things, Web Development, React.js, Mikrokontroler, Control System, Cloud Computing, Machine Learning, Application Programming Interface (API)
- **Soft Skills:** Problem Solving, Growth Mindset, Leadership, Time Management, Critical Thinking, Team Work, Adaptability, Resilience, Project Management
- **Software:** Visual Studio Code, Arduino IDE, ZelioSoft 2, CX-Programmer, FluidSIM, Proteus, MATLAB, Google Cloud Platform (GCP), Supabase, XAMPP, Laragon, Microsoft Office (Word, Excel, PowerPoint)
- **Bahasa Pemrograman:** Javascript, Python, PHP, C++