

ALVIN OCTA HIDAYATHULLAH

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I am an AI engineer who builds LLM agents that are ready for production. At PT Wibi Digital Technology, I develop an after-sales AI agent for a multi-tenant e-commerce SaaS platform. In my design, the AI gives structured signals, and the code makes all decisions that change data. I test each change with an automated regression harness before release. I have a degree in Robotics and AI Engineering (Cum Laude) and research experience at National Cheng Kung University, Taiwan.

WORK EXPERIENCE

PT Wibi Digital Technology

Jakarta, Indonesia

AI Engineer

Jul 2026 – Present

- Made a partially built return/refund AI agent launch-ready for a pre-launch e-commerce SaaS platform by defining the missing flow logic, a two-layer order-verification gate, human escalation with seller alerts, and an SLA-based auto-approve/expiry scheduler.
- Raised the catch rate for adversarial trap replies from 6/14 to 13/14 (0 valid replies blocked) by replacing 6 regex filters with a verifier that checks each AI claim against order data, enforced with JSON Schema and Zod.
- Closed a cross-customer data leak in which a buyer could read and change another buyer's return data, by restricting order lookups to verified session order IDs; a regression test now blocks this exploit on every run.
- Migrated the agent to LangGraph behind a feature flag with results equal to the legacy engine, verified by a 64-scenario regression harness that I built and ran 3 times per change to account for LLM output variance.
- Prepared the real-time messaging layer to scale across multiple processes by adding a Redis adapter for shared rooms, requiring authentication at the WebSocket handshake, and removing a hardcoded session cookie.
- Built a category mapping system that maps seller products from CSV and manual input to shared marketplace categories by using fuzzy matching with a synonym dictionary and a seller bulk-confirm dashboard.

National Cheng Kung University, Dept. Biomedical Engineering

Tainan, Taiwan

Research Intern

Jan 2026 – Jun 2026

- Redesigned a broken 3-axis microscope prototype to run unattended 96-well scans inside a cell incubator by shortening the Z-axis, building a dual-PSU power system to fix under-voltage, and adding LED control and a Flask web panel.
- Cut maximum displacement of the Z-frame by 82% (2.01 mm to 0.353 mm in FEA) by adding diagonal cross-bracing, and chose PLA-CF over PLA and aluminum for sufficient stiffness at lower cost and lead time.
- Measured stage repeatability over 50 repeated moves per axis (X: 0.02 μm mean drift by phase correlation; Z: 1.41% CV of image sharpness on return to focus), and traced the weaker Y axis (0.07 μm , with spikes) to vibration for the next redesign.

Universitas Airlangga

Surabaya, Indonesia

Teaching Assistant, Machine Learning Practicum

Aug 2024 – Dec 2024

- Helped 29 students apply 7 machine learning topics in code by running hands-on debugging sessions, grading lab reports, and holding a mock exam in the real test format.

LEADERSHIP & ORGANIZATIONAL EXPERIENCE

Startup Campus – Data Science: Greener Future With Data-Driven Solutions

Remote

Machine Learning Lead, MSIB (Kampus Merdeka) Program

Sep 2024 – Dec 2024

- Reduced forecast error (MAPE) from 2.95% to 2.61% for Indonesia's renewable energy policy analysis by proposing the team's capstone concept, leading the ML workstream of a 7-person team, and testing an ARIMAX model with external factors against an ARIMA baseline.

EDUCATION

Universitas Airlangga

Surabaya, Indonesia

Bachelor of Robotics and Artificial Intelligence Engineering (GPA: 3.60/4.00 – Cum Laude)

Sep 2021 – Jul 2025

- Proposed the concept and built the prototype for a team project that won Best Campaign Contest, UNAIR Entrepreneurship Exhibition 2024.
- Led Team OuRattan to 2nd place, Business Model Canvas competition, DEEPA FTMM 2022.

SKILLS & CERTIFICATIONS

AI/LLM: LangGraph, OpenAI API, Agent Harness Design (guardrails, grounding, structured outputs), LLM evaluation

ML/Robotics: PyTorch, TensorFlow, Computer Vision (OpenCV), Arduino, Raspberry Pi, FEA

Backend: Node.js, Flask, Sequelize, MySQL, Redis, Socket.IO/WebSocket, Git

Programming: Python, JavaScript, C/C++, SQL

Language: Indonesian (Native), English (TOEFL ITP 510/677)

Certifications: Deep Learning Specialization (DeepLearning.AI), IBM Data Analyst, AI Fresh Graduate Academy (Digital talent x Huawei); [AWS AI Agent Engineer Nanodegree](#) (Udacity scholarship, 4,500 of 100,000+ applicants)