

Muhammad Aldo Fahrezy

DATA SCIENCE · MACHINE LEARNING · AI

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Computer Science student at Universitas Indonesia (GPA 3.88) focused on Data Science & AI — end-to-end ML across computer vision, NLP, and tabular modeling, hardened through 15+ competitions, plus production systems from Rust microservices to full-stack apps.

EDUCATION

Universitas Indonesia — B.Comp. in Computer Science Aug 2024 – Aug 2028 (Expected)

Cumulative GPA 3.88 / 4.00 · Bank Indonesia Scholarship “Skema Unggulan” (2025–present)

Coursework: Statistics & Probability · Linear Algebra · Data Structures & Algorithms · Numerical Analysis · Data Science & AI · Advanced Programming · Databases · Operating Systems

EXPERIENCE

Data Science & AI Member · RISTEK Fasilkom UI Mar 2026 – present

- Compete in DSAI competitions and internal contests; weekly ML/DL training. Contribute to DSAI research (Retrieval-Augmented Generation).
- Assisted in problem-setting for Datathon 2026.

LC Vice President, Outgoing Global Volunteer · AIESEC in UI Feb 2026 – present

- Lead a department across external relations, marketing, customer experience, and international relations; manage end-to-end LEADs pipeline data tracking.
- Coordinate international partners on UN SDG-aligned exchange programs.

Teaching Assistant · Faculty of Computer Science, UI Aug 2025 – present

- Tutor Linear Algebra, Programming Foundations II (Java), Statistics & Probability, and Intro to Digital Systems; coordinate with 4 lecturers and grade 200+ students / semester.

SELECTED PROJECTS

Carbon Footprint Prediction — Interpretable ML · CatBoost, SHAP, co-authored technical report
Benchmarked 9 regressors to predict individual emissions; best model R^2 0.992, MAE 66.4 (44% below runner-up); SHAP for actionable drivers.

BidMart — Distributed Auction Marketplace · Rust, gRPC, RabbitMQ, Spring Boot
Led the Rust auction service: transactional outbox + two-phase settlement saga, defense-in-depth concurrency; 410+ tests, 90% coverage gate, full CI/CD.

WarungFlow — Autonomous Finance-Ops Agent · LLM tool-use, fintech
Tool-using agent reconciling QRIS/bank payments for micro-businesses. 🏆 Best Payment Use Case, OpenClaw Agenthon Indonesia 2026.

BanjirWarga — Community Flood Intelligence · FastAPI, PostGIS, React
Explainable 0–100 flood-risk scoring + Dijkstra risk-weighted safe-routing over a medallion data pipeline (GEMASTIK 2026).

TexTell — Multimodal Fashion Tagging · PyTorch, LoRA, React Native
Trained a CV attribute tagger + LoRA-fine-tuned text generator (Kaggle), served via FastAPI behind an offline-first mobile app.

Competition ML — Speed-dating match prediction (Satria Data BDC, OOF ROC-AUC 0.80); loan-default at ~850k rows (OOF ROC-AUC 0.923); Data Slayer, Objective Quest, GEMASTIK, Datavers Anava.

HONORS & AWARDS

 **Best Payment Use Case** — OpenClaw Agentthon
Indonesia (2026)

3rd Winner — Pekan RISTEK Data Science Competition
(2025)

1st Winner — RISE! IT Business Case Competition, ITS
(2024)

2nd Winner — PKM-PI, OIM Universitas Indonesia
(2025)

Finalist — GarudaHacks 6.0 International Hackathon
(2025)

Awardee — Bank Indonesia Scholarship “Skema
Unggulan” (2025)

SKILLS

ML / DS — Tabular & structured data, Computer Vision, NLP, Feature Engineering, EDA, XAI/SHAP, Ensembles, Time-Series, Model Calibration

LIBRARIES — scikit-learn, XGBoost, LightGBM, CatBoost, TensorFlow, PyTorch, MediaPipe, spaCy, NLTK, Pandas, NumPy

ENGINEERING — Python, Java (Spring Boot), Rust, SQL, JavaScript/TypeScript, REST, Docker, Git, Linux CLI

WEB — Next.js, React, Django, FastAPI, Node.js, Flutter, PostgreSQL/PostGIS, MongoDB

LANGUAGES — Bahasa Indonesia (native), English (C2, IELTS 8.0), French (A2)