

MUHAMMAD FAQIH HAKIM

AI/ML ENGINEER

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AI/ML Engineer bridging applied research (published, IP-registered) with production deployment, specializing in Agentic AI and Graph ML. Shipped local AI pipelines automating financial workflows across 159 branches and an 8,000+ vehicle fleet. Combines production ML engineering (local LLM serving, ERP integration) with technical leadership, directing ML programming for a 4,000+ member developer community.

EDUCATION

Gunadarma University | Bachelor of Informatics

Sep 2022 – Aug 2026

GPA 3.88 / 4.00, | Depok, West Java

- Relevant coursework: Artificial Intelligence, Big Data Computing, Statistics

SMAN 11 Kabupaten Tangerang | Accelerated Program (completed in 2 years), 2020–2022

PROFESSIONAL EXPERIENCE

Business Process & AI Automation (AI Engineer) | PT. Tunas Ridean Tbk (Tunas Group)

Mar 2026 – Present

Internship | Jakarta

- Built an ERP-integrated stock recommendation system using real-time transaction data to prioritize optimal vehicle colors and variants across 126 Toyota branches, reducing a manual 3-day Excel workflow to minutes.
- Engineered a locally hosted AI document validator for enterprise-wide tax reconciliation (full technical details highlighted in Selected Projects).

Research Assistant & ML Engineer | Lembaga Penelitian Universitas Gunadarma

Jan 2025 – Jan 2026

Part-Time | Depok

- Trained a YOLOv12 pipeline achieving 98% mAP50 for hand-fracture detection in collaboration with RSUD Depok, contributing to registered IP.
- Co-managed university-level AI research initiatives and optimized model training workflows on NVIDIA DGX A100.

HPC Development Team | Gunadarma University

Sep 2024 – Present

Staff Part-Time | Depok

- Designed university-wide AI/ML training modules for 30,000+ students across all degree levels (Diploma to Doctoral) and international cohorts.
- Mentored 400+ students in applied AI/ML and supported assistant recruitment and technical interviews.

Machine Learning Engineer | PT. PowerNET IndoSolution

Jul 2025 – Jan 2026

Part-Time (Project-Based) | Jakarta

- Developed a sentiment analysis pipeline over 3,000+ customer comments from Instagram, YouTube, and Google Play Store to identify sentiment trends and product insights for client decision-making.

PUBLICATIONS & INTELLECTUAL PROPERTY

- First Author | “AI Agent Using Transfer Learning to Detect Illegal Activities of Shark Catching,” International Research Journal of Advanced Engineering and Science (IRJAES), 2025. Two-stage YOLOv12 + ResNet-50 pipeline (91.23% mAP50 detection, 92.08% classification accuracy).
- Registered Intellectual Property (HKI) | Hand Fracture Detection System, Official Copyright Registration No. 001053135, Dec 2025.
- Co-Author | “Performance Optimization of Speech Emotion Recognition Using Wav2Vec 2.0,” manuscript in preparation for international journal submission, 2026.

SELECTED PROJECTS

- AI Agentic Fraud Detection System (GAT & Multi-Agent XAI) | Undergraduate ThesisOct 2025 – Jul 2026
- Engineered a Graph Attention Network (GAT) for fraud detection over 25M+ transactions using a PostgreSQL/Memgraph dual-store architecture, achieving 94.28% F1 and 0.98 ROC-AUC.
 - Developed an Agentic XAI pipeline using ReAct loops and DeepSeek, orchestrating 3 LLM agents to generate automated Suspicious Activity Reports (SARs).

Demo: skripsi.faqihhakim.tech

- DGX Chatbot: Agentic RAG Assistant (DGX A100) | Gunadarma UniversitySep 2025 – Mar 2026
- Deployed a hybrid RAG chatbot on NVIDIA DGX A100 supporting 2,000+ postgraduate students, using a custom Indonesian retrieval pipeline with Qdrant, BM25, Sastrawi, and RRF.
 - Orchestrated local LLM serving with vLLM for fine-tuned Qwen3-8B and Qwen2.5-VL models supporting multimodal ingestion.

- AI Financial Reconciliation Agent | PT. Tunas Ridean TbkMay 2026 – Jul 2026
- Built a fully local Qwen-based Agent Validator to parse and reconcile VAT outgoing listings and raw Coretax data sheets against ERP records, achieving 97%+ accuracy across 14,000+ documents.
 - Automated reconciliation across 159 branches, processing 2,500–3,000 documents monthly at 1–5 min/document for an 8,000+ vehicle fleet.

ACHIEVEMENTS

- Grand Champion (Team Lead) | Pesta Data Nasional 2024 | HIMATIKA UIN JakartaDec 2024
- Led team to Grand Champion in a 4-round data lifecycle competition using real banking data from Bank Aladin, ranked 1st in Data Engineering and Data Science (best-accuracy LSTM forecasting), 4th in Deployment (Tableau).
- 3rd Place, Big Data Analysis (Team Lead) | Fesmaro 2025 | HMD TEI Malang UniversityApr 2025
- Built a BiLSTM sentiment analysis pipeline on 3.6M+ Amazon reviews, achieving 93.51% accuracy on DGX A100.

LEADERSHIP & COMMUNITY

- Director Machine Learning | Google Developer Group on Campus, Gunadarma UniversityNov 2025 – Present
- Led 4 machine learning workshops averaging 100 attendees within a 4,000+ member developer community, ranking among GDGoC Gunadarma's top three highest-attended events.
 - Designed AI/ML learning programs and guided students through applied ML projects and model development.
- Research & Development Staff | HIMTI Gunadarma UniversityNov 2023 – Aug 2025
- Directed major organization events, notably leading a Campus Hiring featuring 7+ companies and 10+ sponsors.
- Technical Speaker & Instructor | Various Tech Communities & Gunadarma UniversitySep 2024 – Present
- Led 8+ workshops on Applied AI, GenAI, and HPC for postgraduate and international cohorts.
 - Instructed data science courses and conducted technical Training of Trainers (ToT) for lab assistants.

SKILLS

ML / AI: Python, TensorFlow, PyTorch, Scikit-learn, Agentic AI, ReAct, Function Calling, Local / Open-Weight LLMs
Data & Infrastructure: PostgreSQL, Memgraph, Apache Kafka, Qdrant, Docker, NVIDIA DGX / HPC, FastAPI
Cloud & Analytics: Azure (VM, Azure OpenAI), GCP (Vertex AI, BigQuery), AWS, Tableau, Power BI, Looker Studio
Languages: Bahasa Indonesia (Native), English (Professional)

CERTIFICATIONS

- Certified Associate Data Scientist | BNSP, Issued Jun 2026 (Expires Jun 2029)
- Google Cloud Skill Badges (7x) | Vertex AI, GenAI App, BigQuery ML, TensorFlow, Kubernetes, Looker
- Google Cloud Skills Boost | Diamond League (33,000+ points)