HAFIDH MUHAMMAD AKBAR

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Surakarta, Indonesia

SUMMARY

Fresh Informatics graduate from Universitas Sebelas Maret with a passion for building intelligent systems, specializing in computer vision, NLP, and database optimization. Skilled in Python, SQL, and predictive modeling, with hands-on experience building ML models and working with databases. Enjoys solving real-world problems with data and often explores ideas through competitions and writing. Looking to apply both analytical and programming skills to contribute to impactful projects.

WORK EPERIENCES

Universitas Sebelas Maret — Surakarta, Indonesia
Teaching Assistant (Database Systems and Programming Basics) - Contract — Aug 2023 - Jan 2025

- Designed and taught relational database concepts using SQL Server, with focus on query optimization and indexing techniques
- Implemented Python database integrations to demonstrate data pipeline development on Microsoft Azure
- Conducted hands-on programming labs covering C/C++ fundamentals including pointers, memory management, and OOP principles
- Created beginner-friendly exercises and visual aids to explain data structures (linked lists, stacks, queues, trees)

Bangkit Academy 2023 — Remote
ML Engineer (Project-Based Experience) – Internship — Aug 2023 - Jan 2024

- Developed NutriMate, a full-stack nutrition application that calculates daily calorie needs and generates personalized meal plans using machine learning
- Engineered and optimized a recommendation system using collaborative filtering techniques (TensorFlow, Python, Javascript)
- Presented technical solutions to industry experts, receiving recognition for innovative approach to personalization

CERTIFICATION

TensorFlow Developer Certificate — Sep 2024 – Sep 2029
Google for Developer

EDUCATION

Universitas Sebelas Maret — Surakarta, Indonesia
Bachelor of Informatics — Aug 2021 – Apr 2025
GPA: 3.93/4.0
Thesis: Ultrasound Image Segmentation for Breast Cancer Detection Using Double Half-UNet with Attention Mechanism

ORGANIZATION

UKM Penelitian dan Pengabdian Masyarakat (P2M) — Surakarta, Indonesia
Member — Jan 2025 - Apr 2025
Participated in workshops, proposal writing, and collaborative projects involving data and technology, while also supporting knowledge-sharing sessions and mentoring junior members

AWARDS

1st Winner & Best Paper of Gemastik XVI 2023 (Scientific Paper Category) Sep 2023

Developed "AGU-NET: Attention Ghost U-Net for Biomedical Image Polyp Segmentation", an attention-based deep learning model achieving 86.52% mIoU on endoscopic images

1st Place of 11th Airlangga Ideas Competition 2023 Nov 2023

Designed "Improved Factorized Residual U-Net" for medical image segmentation, achieving 90.24% mIoU through optimized feature extraction modules

Finalist of Gemastik XVII 2024 (Data Mining Category) Sep 2024

Ranked Top 6 nationally in predicting university tuition fee categories (UKT) using machine learning based on socioeconomic data analysis

1st Place of Academic Competition of Data Science 2024 (Scientific Paper Category) Oct 2024

Created "Pixel Attention Half-UNet for Satellite Image Building Detection", a computationally efficient model for satellite image analysis with 70.9% mIoU accuracy

PUBLICATIONS & CONFERENCES

AGU-NET: Attention Ghost U-Net for Biomedical Image Polyp Segmentation Oct 2023

Publisher: Buletin GemasTIK

ACMU-Net: An Efficient Architecture Based on ConvMixer and Attention Mechanism for Colorectal Polyp Segmentation Nov 2024

Publisher: IEEE

Improved Factorized Residual U-Net for Biomedical Polyp Segmentation Jan 2025

Publisher: IEEE

SKILLS

Hard Skills: Python, TensorFlow, PyTorch, SQL, Java, Machine Learning, Deep Learning, Data Analysis, Database Management, Data Visualization

Soft Skills: Leadership, Communication, Problem Solving, Team Collaboration

Software Skills: Jupyter Notebooks, VS Code, Git, Docker, Tableau, Google Colab

LANGUAGES

Indonesia - Native

English - Advanced