

Mu'afa Riski Ali

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Professional Summary

Informatics graduate from Universitas Gunadarma specializing in Machine Learning (Computer Vision) and Full-stack & Mobile Development. Designed a Hybrid Autoencoder-CNN architecture for brain tumor classification on MRI images with CLAHE preprocessing optimization, achieving 89.31% internal accuracy (macro F1 0.8859) on a cleaned dataset of 4,735 images. Experienced in managing the full software engineering lifecycle - from experimental model training to production deployment using Python (Flask), TypeScript, React Native (Expo), and modern databases.

Education

Universitas Gunadarma

Bachelor of Computer Science (S.Kom) - Informatics Engineering
GPA: 3.76 / 4.00

Depok, Indonesia

Graduated: August 2026

Thesis: Brain Tumor Classification on MRI Images Using Hybrid Autoencoder and CNN Architecture with CLAHE Preprocessing Optimization (Defended 11 August 2026)

Technical Skills

- **Machine Learning & Computer Vision:** TensorFlow, Keras, CNN, Autoencoder, Scikit-learn, OpenCV, CLAHE, Anomaly Detection
- **Web & Backend:** Python (Flask), TypeScript, JavaScript, Node.js, HTML5, CSS3, Streamlit, Railway, Vercel
- **Mobile Development:** React Native, Expo, Expo Router
- **Database & Cloud:** LibSQL/Turso, Microsoft SQL Server, Oracle Database, Relational Database Design, SQL
- **Tools:** Git, GitHub, Google Colab (GPU), Kaggle, Postman, Appetize.io

Projects

Brain Tumor MRI Classification: Hybrid Autoencoder + CNN

2025 - 2026

TensorFlow, Flask, OpenCV, Streamlit

- Designed a Hybrid Autoencoder-CNN architecture for 4-class brain tumor classification (glioma, meningioma, pituitary, no tumor) with CLAHE preprocessing optimization.
- Performed multi-stage data cleaning from three public sources, resulting in a final dataset of 4,735 images.
- Achieved 89.31% internal accuracy (macro F1 0.8859) and 71.25% generalization accuracy on external BraTS 2020 validation.
- Applied a three-stage training strategy and conducted CLAHE parameter ablation study.

Bloxxd - Roblox Social Discovery Platform

2026

TypeScript, Turso (LibSQL), REST API, Vercel

- Developed and launched a web platform for recording, reviewing, and tracking Roblox games.
- Integrated the official Roblox API with Turso cloud database for low-latency queries.

Motion-fits - Mobile Fitness Tracker

2026

React Native, Expo, Expo Router

- Designed a cross-platform fitness tracking application using Expo Router architecture and local persistence.
- Provided an interactive browser-based simulation via Appetize.io.

Field Activity Reporting App (SPKPPSU)

2026

TypeScript, PWA, Cloud Database

- Developed a Progressive Web App for real-time field work recording and admin monitoring.
- Implemented offline local cache handling to ensure stable reporting in low-signal areas.

Certifications & Training

- **Samsung Solve for Tomorrow (SFT) 2025** - Design Thinking Workshop (Samsung & Skilvul). Concept Paper Score: 92.1
- **Dicoding Indonesia** - Belajar Dasar AI

- **Computer Laboratory, Universitas Gunadarma** - Advanced Database Systems, SQL Server Intermediate, Oracle Intermediate
- **Computer Laboratory, Universitas Gunadarma** - Fundamental Web Programming, JavaScript Programming Language Fundamental

Languages

Indonesian (Native) • English (Technical Working Proficiency)