



MUHAMMAD ABIYA MAKRUF

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Bandung, Indonesia

Master's Student in Informatics | Aspiring AI Engineer | Expertise in Deep Learning, Computer Vision & MLOps | Backend, DevOps, & Cloud Enthusiast

Experiences

Freelancer - Bandung, Indonesia

Jan 2025 - Sep 2025

Freelance Data & Computer Vision

Self-directed freelance work delivering data analytics and computer vision solutions for clients in sports analytics and retail sectors.

- Engineered a Computer Vision pipeline (using YOLO and custom datasets) for real-time player detection and tracking in sports analytics.
- Applied Data Analytics and Visualization to construct a Power BI sales dashboard, enabling insights into product performance and profit optimization.

PT Toyota Astra Motor - Jakarta, Indonesia

Aug 2024 - Sep 2024

Internship

Toyota Astra Motor is the official distributor of Toyota vehicles in Indonesia, focusing on automotive sales, service, and innovation, while implementing digital transformation across operational areas.

- Developed a series of interactive dashboards for fixed asset management and analysis, improving data-driven decision-making processes within the organization.
- Built a real-time asset movement tracker, allowing the company to monitor and control asset flows efficiently across departments in Indonesia.

Solafune Inc. - Sumida City, Tokyo

Apr 2024 - Jun 2024

Research Internship

Solafune is a geospatial technology company specializing in satellite imagery analysis for diverse sectors including agriculture, disaster response, natural resources, finance, defense, marketing, and insurance.

- Contributed to a Deep Learning project for automated solar panel detection and masking from Sentinel-2 multi-spectral imagery (13 bands).
- Utilized Convolutional Neural Networks (CNNs) and advanced Image Processing techniques to achieve high-accuracy feature extraction in remote sensing data.

Bangkit Academy - Bandung, Indonesia

Feb 2024 - Jun 2024

Bangkit 2024 Cohort – Machine Learning Path

Bangkit Academy is a career readiness program initiated by Google, GoTo, and Traveloka. The 2024 Machine Learning path equips participants with in-demand technical and soft skills through expert-led training, project-based learning, and industry collaboration.

- Graduated with Distinction from the Machine Learning Path, demonstrating proficiency in TensorFlow and advanced ML/DL concepts.
- Selected for the Capstone Company Path, collaborating with Solafune Inc. Japan on a real-world Computer Vision project.

Informatics Laboratory – Telkom University - Bandung, Indonesia

Sep 2022 - May 2025

Assistant Practicum

Assisted in preparing and delivering lab sessions, conducting tutorials, grading practical assignments and exams, and providing hands-on academic support.

- Served as a Laboratory Assistant for 5 technical courses (Algorithms, Data Structures, Computer Networks, OOP, and Basic AI).

Faculty of Informatics – Telkom University - Bandung, Indonesia

Sep 2022 - Jan 2026

Assistant Lecturer

Assisted in delivering undergraduate courses by conducting tutorials, grading assignments and exams, preparing teaching materials, and supporting students academically.

- Lecturer Assistant for 9 diverse subjects across mathematical and computer science disciplines.

Digistar Class by Telkom Indonesia - Jakarta, Indonesia




Jun 2023 - Sep 2023

Digistar 2023 Graduate

A national technology talent development program by Telkom Indonesia designed to equip students with industry-relevant hard and soft skills.

- Completed the Backend Development path, gaining proficiency in building robust, scalable APIs which is essential for deploying ML/AI models.
- Collaborating on a capstone project that is part of several different learning paths.


















Education Level

Telkom University  - Bandung, Indonesia	Feb 2025
<i>Master of Informatics, 3.94/4.00</i>	
<ul style="list-style-type: none">• Authored two Computer Vision papers (Journal and Peer-Reviewed Conference) focusing on Plant Disease Classification and Soccer Object Detection Analytics.• Actively volunteered in three major events: ICoICT, ICoSEIT, and the national-level GEMASTIK Competition.	
Telkom University  - Bandung, Indonesia	Sep 2021 - Jan 2025
<i>Bachelor of Informatics, 3.96/4.00</i>	
<ul style="list-style-type: none">• Secured top placements (2nd and 4th) in two national Hackathons, developing mobile applications integrated with AI for Plant Disease and Landmark Recognition.• Authored a research paper on Deep Learning for Apple Plant Disease, published at the ICICYTA 2024 Conference.	
SMA Negeri 2 Bandung  - Bandung, Indonesia	Jul 2018 - Jun 2021
<i>Senior High School</i>	
<ul style="list-style-type: none">• Students with the highest average school exam scores (Science Program).	

Organisational Experience

Gemastik XVIII - Bandung, Indonesia	Oct 2025
<i>Liaison Officer</i>	
<i>GEMASTIK (National Student ICT Exhibition).</i>	
<ul style="list-style-type: none">• Supervised a Data Mining competition focused on building Machine Learning classification models and Aksara Jawa OCR solutions.• Provided technical support to participants on implementation issues.	
3rd International Conference (ICoSEIT) - Bandung, Indonesia	Sep 2025 - Oct 2025
<i>Volunteer - Editorial and Event Team</i>	
<i>an international hybrid conference, with a strong focus on AI, Deep Learning, and Computer Vision technologies.</i>	
<ul style="list-style-type: none">• Contributed to the Editorial and Program Team by proofreading and guiding participants & session chairs	
13th International Conference (ICOICT) - Bandung, Indonesia	Jul 2025
<i>Volunteer – Program and Editorial Team</i>	
<i>an international hybrid conference, with a strong focus on AI, Deep Learning, and Computer Vision technologies.</i>	
<ul style="list-style-type: none">• Contributed to the Editorial and Program Team by proofreading and guiding participants & session chairs	

Skills, Achievements & Certificate

<ul style="list-style-type: none">• Achievements  (2025): Graduated with summa cum laude honors• Achievements  (2024): Distinction Graduate Bangkit Academy Machine Learning Path• Achievements  (2023): 2nd Place Winner – Hackathon competition organized by KMTETI, Universitas Gadjah Mada (UGM)• Achievements  (2023): Finalist (4th Place) – Hackathon competition organized by Universitas Ciputra Surabaya• Projects  (2025): Developed and deployed an AI pipeline for automated video processing sports application.• Projects  (2024): Built AI module that pre-processes the satellite data (sentinel-2) to accurately identify and localize solar panels.• Projects  (2024): Machine learning model for text classification (Sentiment Analysis)• Projects  (2024): Machine learning recommendation system model using CBF and CF• Projects  (2023): Planties: AI-powered mobile app for plant management and disease detection.• Dicoding: AI Engineer Certification  (2025)• Dicoding: MLOps Engineer Certification  (2025)• Dicoding: Data Scientist Certification  (2025)• Dicoding: Gen AI Engineer Certification  (2025)• Coursera: TensorFlow Data and Deployment Specialization Certification  (2024)• Coursera: TensorFlow Advanced Techniques Specialization Certification  (2024)• Coursera: Machine Learning Specialization Certification  (2024)• Coursera: DeepLearning.AI TensorFlow Developer Professional Certification  (2024)• Deep Learning & Computer Vision: TensorFlow, PyTorch, YOLO, Roboflow, MLflow, Dagshub• MLOps & Deployment: Docker, Kubernetes, GitHub Actions, Jenkins, RunPod, Prometheus, Grafana• Data & BI Tools: Power BI• Soft Skills: Time management, leadership, and organizing activities		
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