

AXEL DAVID

AI Engineering & Cloud Computing | MLOps | Full-Stack Development

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PROFESSIONAL SUMMARY

Computer Engineering graduate from Telkom University, currently pursuing a Master's degree in Information Technology and Systems at Institut Teknologi Bandung (ITB). Focused on the intersection of machine learning, cloud infrastructure, and intelligent system design. Experienced in developing and deploying cloud-native applications, building RESTful APIs for IoT systems, and applying AI/ML concepts to real-world use cases. Brings a strong foundation in DevOps principles, CI/CD pipelines, and hands-on teaching experience in cloud computing and programming, with a continuous drive to deepen expertise in scalable AI-powered solutions.

EDUCATION

Master of Science – Information Technology and Systems

Jan 2026 – Jan 2027

Institut Teknologi Bandung (ITB) | Bandung, Indonesia

- Focus: AI engineering, machine learning systems, and intelligent software infrastructure

Bachelor of Engineering – Computer Engineering

Aug 2021 – Aug 2025

Telkom University | Bandung, Indonesia

- Graduated with comprehensive studies in software engineering, cloud computing, and IoT systems
- Active as laboratory teaching assistant and research collaborator throughout academic tenure

PROFESSIONAL EXPERIENCE

Cloud Computing Cohort

Sep 2024 – Jan 2025

Bangkit Academy (Google, Tokopedia, Gojek & Traveloka) | Remote

- Completed intensive cloud computing learning path covering Google Cloud Platform core services
- Developed practical skills through blended learning on Dicoding, Coursera, and Google Cloud Skills Boost
- Gained hands-on experience in deploying scalable cloud solutions and infrastructure management

Laboratory Teaching Assistant – Cloud Computing

Jun 2024 – Jun 2025

Everything Connected (EvConn) Laboratory, Telkom University | Bandung, Indonesia

- Facilitated cloud computing lab sessions covering CI/CD pipelines, DevOps workflows, and deployment automation
- Guided students through practical implementation of cloud-native concepts and infrastructure-as-code
- Provided structured feedback on assignments and project deliverables

Research Collaborator – IoT Inventory Management System

Jan 2024 – Jan 2025

SEA Laboratory, Telkom University | Bandung, Indonesia

- Developed the mobile application component of an IoT-based inventory management system
- Integrated UHF RFID technology with IoT devices via RESTful API for multi-object tracking
- Collaborated cross-functionally with hardware and backend teams to deliver end-to-end system integration
- Research published in Indonesian Journal of Artificial Intelligence and Technology (IJAIT), Telkom University — journals.telkomuniversity.ac.id/ijait/article/view/9571

UI/UX Designer (Internship)

Jul 2024 – Aug 2024

Telkomsel | South Jakarta, Indonesia

- Conducted user research, usability testing, and heuristic evaluation of internal dashboard interfaces

- Analyzed qualitative and quantitative data to surface UX pain points and drive data-informed design decisions
- Delivered actionable improvement recommendations to product stakeholders through structured presentations

Community Service Team Leader – TaniMaju

Jan 2024 – Oct 2024

SEA Laboratory, Telkom University | Bandung, Indonesia

- Led development of 'TaniMaju', a Laravel-based web application for agricultural harvest management
- Coordinated a cross-functional development team, managing project milestones and deliverables
- Project published on ResearchGate: 'Developing An Innovative Web-based Agricultural Management System for Sukamaju Village' — researchgate.net/publication/391785521

Laboratory Teaching Assistant – OOP & Algorithms

Jul 2023 – Jun 2024

SEA Laboratory, Telkom University | Bandung, Indonesia

- Instructed students in object-oriented programming with Python and algorithmic fundamentals with C
- Designed practical sessions and assessment rubrics aligned to course learning objectives

Mentor – Desktop Development Study Group

Oct 2023 – Dec 2023

SEA Laborator, Telkom University | Bandung, Indonesia

- Mentored aspiring developers in building desktop applications using Python

ORGANIZATIONAL EXPERIENCE

Secretary – Communication & Information Dept.

Dec 2024 – Sep 2025

Himpunan Mahasiswa Teknik Komputer (HMTK), Telkom University | Bandung, Indonesia

- Managed meeting documentation, digital content assets for social media, and departmental financial records

Laboratory Administrator & Public Relations Coordinator

Aug 2023 – Jun 2025

SEA Laboratory & EvConn Laboratory, Telkom University | Bandung, Indonesia

- Managed Instagram and YouTube content; handled external communications with media and stakeholders
- Organized laboratory files, made official announcements, and coordinated internal/external relations

PUBLICATIONS & RESEARCH

Hybrid Framework for E-Waste Classification using YOLO11 and Large Language Model Validation

IEEE Xplore | 2025

- Designed a hybrid detection-validation pipeline combining YOLO11 real-time object detection with an LLM-based reasoning engine for accurate e-waste classification
- Demonstrated that Large Language Models can serve as logical validation components in complex engineering workflows, extending their utility beyond conversational applications
- Presented at Toyota Expertise Exhibition 2025 (Toyota Indonesia – TMMIN) as Capstone Design Showcase
- Presented at International Conference on Advanced Technologies in Energy and Informatics (ICATEI) 2025 in Lombok, Indonesia, prior to formal IEEE conference publication.

<https://ieeexplore.ieee.org> | <https://lnkd.in/gUvJDa9s>

IoT-Based Inventory Management System with UHF RFID and Mobile Application Integration

Indonesian Journal of Artificial Intelligence and Technology (IJAIT), Telkom University | 2024–2025

- Developed mobile application component integrating UHF RFID and IoT devices for multi-object inventory tracking

journals.telkomuniversity.ac.id/ijait/article/view/9571

Developing An Innovative Web-based Agricultural Management System for Sukamaju Village

ResearchGate | 2024

- Designed and led development of TaniMaju, a Laravel-based harvest management platform for a rural agricultural community

researchgate.net/publication/391785521

TECHNICAL SKILLS

Cloud & DevOps: Google Cloud Platform (GCP), CI/CD, DevOps, Docker, Infrastructure as Code

AI & Machine Learning: Machine Learning, Computer Vision (YOLO11), LLM Integration & Validation, Google Gemini API, AI Application Development

Programming: Python, JavaScript, C, PHP (Laravel)

Development: REST API Design, IoT Integration, Mobile Application Development, Web Development

Tools & Platforms: Git, Google Cloud Skills Boost, Dicoding, Coursera

CERTIFICATIONS

- Gemini Certification for Students (K12) – Google
- Belajar Dasar AI – Dicoding
- Menjadi Google Cloud Engineer – Dicoding / Google Cloud

LANGUAGES

Indonesian: Native

English: Professional Working Proficiency

German: Elementary