

MITCHEL MOHAMAD AFFANDI

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Bandung, West Java, Indonesia

I am a Telecommunications Engineering student at Telkom University with a consistent 4.00/4.00 GPA, driven by a disciplined approach to technical and academic excellence. My specialization focuses on system logic and scalable architectures, with a strong foundation in building high-performance software. Moving forward, I am eager to deepen my expertise in Cloud Computing and the practical application of AI/ ML, aiming to integrate these technologies into robust, production-grade engineering solutions. I am committed to a path of continuous technical refinement, focusing on creating efficient systems that bridge complex infrastructure with innovative software design.

Professional Experience

Infranexia (PT Telkom Infrastruktur Indonesia) - South Jakarta, Indonesia

Jun 2026 - Aug 2026

Cloud Infrastructure Engineer, Intern | Virtualization & SDN Operations

- Contributed to the strategic evaluation and planning for infrastructure migration from Oracle Linux Virtualization Manager (OLVM) to an open-source OpenStack cloud environment.
- Monitored enterprise-grade telemetry and alerting via Zabbix to maintain baseline host metrics, virtualization layers, and server health across the data center.
- Analyzed high-availability routing principles, including BGP Autonomous System Numbers (ASN) and Virtual Router Redundancy Protocol (VRRP), within telecom data center environments to support zero-downtime operations.

EPICS in IEEE - Bandung, Indonesia

Nov 2025 - Aug 2026

Lead Software Engineer

- Led end-to-end software development and infrastructure for Citra Banjir (citrabanjir.id), an IEEE EPICS community service flood early-warning system.
- Built and owned the full deployment pipeline: a Dockerized monorepo (Node.js/TypeScript backend, Python AI service, Next.js frontend), Nginx reverse proxy, SSL, and self-hosted PostgreSQL on a production VPS.
- Collaborated with BBWS Citarum, BPBD Jawa Barat, BPBD Kab. Bandung (PUSDALOPS), and BMKG Jawa Barat to align the system with real flood-response operations.

PT. Ekshalasi Langit Biru - Bandung, Indonesia

Apr 2025 - Present

Backend Developer

- Golang services to process 10K+ daily sensor data points, utilizing Redis to accelerate data retrieval by 55%.
- Optimized Google Cloud database architectures, slashing query latency by 40% through advanced restructuring and high-performance management.
- CI/CD pipelines via GitHub Actions that cut deployment time by 60% and refactored legacy codebases into a modular microservices architecture, reducing technical debt by 35%.

Sri Eshwar College of Engineering x International Summer Internship Programme - Coimbatore, India

Jul 2025 - Aug 2025

International Research Intern

- Participated in an intensive international research program focused on Artificial Intelligence applications in business innovation and industrial transformation.
- Engaged in collaborative research discussions and domain-specific sessions on machine learning, data analytics, and AI-driven decision-making tools.
- Collaborated within a multicultural environment on interdisciplinary case studies and industrial visits, demonstrating how AI transforms industries like finance and operations.

PBI Evermos x Rakamin Academy - Bandung, Indonesia

Jan 2025 - Feb 2025

Backend Developer

- Engineered backend algorithms using Golang, focusing on optimizing query execution and server-side logic.
- Managed database operations and schema design using MySQL to ensure data integrity across the platform.
- Optimized server performance and stability prior to deployment, minimizing downtime and streamlining workflows through structured Git version control.

Cyber Physical System Laboratory - Bandung, Indonesia

Sep 2024 - Present

Research Assistant & Head of Human Resource Division

- Engineered RESTful APIs and backend algorithms using Node.js and Express.js, optimizing data retrieval and system latency for laboratory research.
- Architected scalable database structures using MySQL and PostgreSQL, ensuring high availability and structured data management for multi-user research projects.
- Directed laboratory operations and project workstreams, centralizing internal workflows via Notion to improve cross-departmental collaboration.

Education Level

Telkom University - Bandung, Indonesia <i>Bachelor of Telecommunication Engineering, 4.00/4.00</i> • Awardee of "Beasiswa Pintar" • Served as Telecommunications Engineering International Class Coordinator for 6 semesters.	Sep 2023 - Feb 2027 (Expected)
SMAN 2 Tasikmalaya - Tasikmalaya, Indonesia <i>High School Diploma in Science and Mathematics, 95.01/100.00</i> • Ranked in the Top 10 best graduates. • Crowned as Jajaka of SMAN 2 Tasikmalaya (2021).	Jun 2020 - May 2023

Project Experience

Cardivex - Capstone & ICCEREC 2026 Paper, Telkom University <i>Machine Learning & Full-Stack Developer</i> • Built a stacked Random Forest + XGBoost classifier for 3-class cardiotoxicity (TdP) risk prediction from CiPA ion-channel biomarkers, reaching a macro-F1 of 0.83 under leak-free StratifiedGroupKFold validation. • Diagnosed and corrected drug-level data leakage that had inflated cross-validation scores, then added split-conformal calibration to eliminate under-triage of high-risk drugs. • Deployed the model as a Hugging Face Space with /predict and /explain (SHAP) endpoints, wrapped in a Next.js and Rust (Axum) web platform. • Tech Stack: Python, scikit-learn, XGBoost, SHAP, Hugging Face, Next.js, Rust (Axum), PostgreSQL.	Feb 2026 - Present
MIRA - Physical System Laboratory – Mobile App Development Course, Telkom University <i>Backend Developer</i> • Built a Generative AI study assistant integrating the Google Gemini API for context-aware summarization, quiz generation, and study-plan creation; awarded a perfect score of 100/100. • Engineered a Node.js/Express REST API with admin operations, bulk XLSX processing, and a tiered subscription system with feature gating across Regular, Plus, and Premium tiers. • Used Supabase (PostgreSQL) with Row-Level Security policies for real-time data syncing and user-data privacy. • Tech Stack: Flutter, Dart, Node.js, Express.js, Supabase, PostgreSQL, Google Gemini API.	Dec 2025 - Jan 2026
BTC Price Forecaster - Cloud Computing Course, Telkom University <i>Full-Stack & AI Developer</i> • Built an end-to-end cryptocurrency price forecasting system: a Python machine-learning model served through a Go REST API and visualized via a live dashboard deployed on Vercel. • Designed the full pipeline from model training and inference to real-time serving and web visualization, delivering the entire stack independently. • Tech Stack: Python, Go, JavaScript, Vercel, WebSocket, Railway	Jun 2025 - Jul 2025
AQUA - Microprocessor & IoT Course, Telkom University <i>IoT & Backend Developer</i> • Developed an early flood-detection system on an ESP32 sensor network (ultrasonic water-level, soil-moisture, and rain sensors), classifying real-time conditions as Safe, Warning, or Danger. • Integrated the hardware with Firebase for real-time data management and built a responsive monitoring dashboard hosted on Vercel. • Tech Stack: ESP32, C++, Arduino IDE, Firebase, Vercel.	Oct 2025 - Dec 2025

Leadership & Organizations

International Class Student Volunteer - Bandung, Indonesia <i>President</i> • Directed organizational agendas and strategic initiatives for 50+ members, fostering a productive and inclusive work environment. • Spearheaded mentorship and leadership platforms to enhance student engagement and ensure equal opportunities for international students. • Coordinated directly with the International Class Academic Office to streamline communication and departmental collaboration.	Feb 2025 - Feb 2026
IEEE Branch Telkom University - Bandung, Indonesia <i>Human Resource Staff</i> • Managed quality control and performance metrics for internal members to optimize organizational engagement and long-term retention. • Spearheaded recruitment cycles using structured evaluation processes to drive sustainable organizational growth. • Coordinated cross-functional workshops to align technical and administrative divisions with IEEE standards, streamlining internal communication.	Jan 2025 - Jan 2026

Skills

- **Technical Skills:** HTML, CSS, JavaScript, PHP, Go, Node.js, Express.js, Laravel, MySQL, PostgreSQL, Google Cloud, Redis, Web-Socket, GIT, GitHub, Postman, DBeaver, pgAdmin, Vercel, Railway, Supabase, CI/ CD (GitHub Actions), Figma, Notion, Google Workspace, MS Office
- **Soft Skills:** Team Management, Public Speaking, Time Management, Flexibility, Adaptability, Continuous Learning, Problem Solving
- **Languages:** English (Advanced), Indonesian (Native), German (Basic)

Certifications

- **Introduction to Network** | Cisco | May 14, 2025
- **Computer Network Fundamental** | Coding Studio | February 1, 2025
- **Introduction to Data Science** | Cisco | May 15, 2025
- **Python Programming** | Red Hat | May 5, 2025
- **Artificial Intelligence Introduction** | MySkill | October 22, 2023
- **Introduction to React JS** | Edspert.id | September 13, 2023