MUHAMMAD TIMUR KANIGARA

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Fourth-year Informatics Engineering student at Institut Teknologi Bandung with hands-on experience in full-stack software development, RESTful APIs, and database-driven applications. Experienced in Python, FastAPI, PostgreSQL, SQLAlchemy, and Docker through the development of multi-client analytics platforms and e-commerce applications. Strong foundation in software engineering, data structures, and problem-solving.

Jenjang Pendidikan

Institut Teknologi Bandung - **Bandung, Indonesia** Aug 2023 - Aug 2027 (Perkiraan)

Bachelor of Informatics Engineering, 3.39/4.00

Work & Academic Experiences

MAI - **Jakarta** May 2026 - Sekarang

AI Software Engineer

- Developed a full-stack analytics platform using React.js, FastAPI, PostgreSQL, and SQLAlchemy, supporting 10+ client accounts.
- Implemented data ingestion workflows through CSV uploads and API synchronization, enabling centralized client data management.
- Built interactive KPI dashboards with customizable metrics and manual data correction features, integrating frontend interfaces with RESTful backend services.
- Automated client report generation by combining structured analytics data with AI-powered performance insights and recommendations.

Computational Thinking Course - **Bandung** Sep 2025 - Dec 2025

Practicum Assistant

Supervised and facilitated practicum sessions for approximately 70 students, ensuring smooth execution of hands-on computational thinking exercises. Responsibilities included monitoring student progress during labs, evaluating and grading assignments, and providing timely academic support by answering questions and clarifying course concepts. Contributed to maintaining an interactive and supportive learning environment throughout the practicum.

Socio-Informatics and Professionalism Course - **Bandung** Sep 2025 - Dec 2025

Teaching Assistant

Support the lead professor in delivering a core course on IT ethics, society, and professionalism for 100+ students. Responsibilities include evaluating and providing constructive feedback on student assignments, administering examinations, and upholding academic integrity. Additionally, assist in managing course logistics and providing academic support to students during tutorial sessions.

Projects

Nimonspedia E-Commerce Platform - **PHP, PostgreSQL, Docker**

- Developed a full-stack e-commerce application with buyer and seller interfaces, supporting product discovery, search filtering, and store management.
- Implemented server-side functionality and PostgreSQL database integration for product catalogs, user profiles, and transactions.
- Containerized the application using Docker and Docker Compose to support consistent development and deployment workflows.

Automated Resume Screening (CV ATS) Application - **Python, MySQL, PyQt5**

- Developed a desktop application for automated resume processing, integrating PDF parsing, candidate filtering, and structured data storage.
- Implemented KMP and Boyer-Moore string-matching algorithms and integrated MySQL for managing candidate information.

Custom Operating System (Luma_OSjang) - **C, GCC, Make, QEMU, Linux**

- Developed core operating system components, including interrupt handling, process context switching, and memory paging.
- Collaborated on kernel integration with an EXT2 filesystem, memory manager, and command-line shell, testing the system using QEMU.

Keterampilan

- **Programming Languages**: Python, C/C++, Java, JavaScript, PHP, SQL, Go
- **Frontend Development**: React.js, HTML5, CSS3, Responsive Web Design, UI/UX Implementation
- **Backend Development**: FastAPI, REST APIs, SQLAlchemy, JWT, WebSockets
- **Databases & AI**: PostgreSQL, MySQL, Machine Learning, NumPy, Scikit-learn
- **Core, Tools & Infrastructure**: OOP, MVC, Data Structures & Algorithms, Operating Systems, Git, Docker, Nginx, Linux