MUKTIADI AKHMAD JANUAR

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South Jakarta

I bridge the gap between business vision and technical execution. From enterprise architecture and data strategy to embedded systems and AI integration, I deliver end-to-end solutions that drive measurable organizational impact. What differentiates me is range with depth. I operate across enterprise software, cloud-hybrid infrastructure, data platforms, industrial embedded systems, and compliance frameworks, and I deliver across all of them with the same standard of quality. Whether the stakeholder is an executive committee, a field operations team, or an engineering department, I align technology decisions with organizational objectives. Every system I design starts with the people who will use it. Technology should accelerate decision-making, not add complexity.

Work Experiences

Pertamina Foundation - **South Jakarta, Indonesia** Jun 2025 - Present

Officer IT Architecture & Solution

Architecting the digital backbone for one of Indonesia's largest corporate foundations, encompassing platform architecture, AI integration, regulatory compliance, and IT infrastructure modernization.

- Lead Architect for PFSeries 2.0: Engineered a ground-up digital ecosystem that eliminated legacy manual processes through full end-to-end automation, streamlining the entire registration-to-monitoring lifecycle.
- Architected a robust registration and monitoring infrastructure capable of supporting 100,000+ concurrent users with high availability and zero downtime during peak loads.
- Pioneered the deployment of automated AI-driven interviews and custom WebRTC-based video conferencing to modernize candidate vetting within core foundation applications.
- Led LiDAR and remote sensing initiatives to provide verifiable, high-precision carbon sequestration metrics supporting corporate ESG and reforestation sustainability goals.
- Consolidated fragmented data streams into a centralized executive dashboard, providing a 'Single Source of Truth' for real-time leadership decision-making.
- Delivered a unified digital platform to synchronize project monitoring and inter-departmental meeting alignment, improving overall organizational transparency.
- Developed a secure, integrated system for managing grant recipients and alumni, ensuring data integrity and auditability for long-term program impact evaluation.
- Served as the technical lead for UU PDP (Data Protection Law) alignment, implementing rigorous security standards to safeguard sensitive stakeholder information.
- Designed and managed a comprehensive backup and disaster recovery strategy aligned with enterprise best practices to ensure business continuity for mission-critical data.
- Directed the strategic overhaul of foundational IT systems, including secure network architecture, data center optimization, and scalable cloud-on-premise hybrid solutions.

PT Pertamina (Persero) - **South Jakarta, Indonesia** Dec 2024 - Jun 2025

Human Capital Integration System & Analytics

Contributed to the holding company's digital HR transformation, unifying fragmented learning and knowledge management systems across Pertamina's subsidiary network.

- Analyzed the business processes of Pertamina Corporate University and contributed to the development of an integrated Learning Management System (LMS) and Knowledge Management System (KMS) to unify multiple legacy platforms into a single enterprise-wide application, improving efficiency and employee experience across the Pertamina Group.
- Revamped the Human Capital Corporate Dashboard with a modernized interface and refined KPIs, enhancing executive insights and data-driven decision-making.
- Produced instructional and promotional videos to support application rollout, feature explanation, and user adoption (sosialisasi) across business units.
- Proactively identified business needs and developed custom tools and automation solutions to streamline workflows and support continuous process improvement.

Institut Teknologi Nasional Bandung - **Bandung, Indonesia** Oct 2024 - Apr 2025

Instrumentation & Control Specialist

Appointed as instrumentation and control specialist for a Rp2.8 billion LPDP-funded national research initiative, leading embedded systems architecture for an industrial bioenergy facility.

- Led the planning and development of the instrumentation and control system for an industrial-grade machine under the Rp2.8 billion LPDP-funded project "Hibah RISPRO Komersial – Bio CNG dari Kotoran Ternak."
- Designed the embedded system architecture to control and monitor machine operations, ensuring real-time responsiveness, safety compliance, and optimal performance for bioenergy production.

Innovative Working-Space Living Laboratory, Itenas - **Bandung, Indonesia**

Jul 2024 - Dec 2024

Senior Project Advisor

Directed IoT and defense technology initiatives at Itenas' innovation laboratory, bridging academic research with operational defense and automation applications.

- Led the development of the "Drone-as-a-Wingman" system, an autonomous drone integration designed as an add-on for the Itenas Sergap-Senyap EV Military Jeep. The project is being prepared for showcase at the Indo-Defence 2024 Expo & Forum, aimed at demonstrating its potential for tactical support in defense applications.
- Guided students on a wide range of IoT and engineering innovation projects, offering technical expertise to address complex challenges in areas such as automation, control systems, and software development.

Mukti Mechatronics - **Bandung, Indonesia**

Dec 2022 - Present

Self-Employed

Independent practice in rapid hardware prototyping and embedded system development, serving as a testing ground for applied engineering solutions.

- Pursued independent mechatronics projects alongside academic studies, combining hardware prototyping with embedded system development.
- Applied CAD design, 3D printing, CNC routing, and laser engraving to create functional custom prototypes for automation, control, and IoT applications.
- Designed and built a variety of electronics projects using Arduino, STM32, and ESP32 platforms, integrating sensors, actuators, and interactive displays to test concepts and expand technical capabilities.

Tim Penanggulangan Dampak Sosial & Lingkungan RU VI Balongan, PT. Kilang Pertamina Internasional - **Indramayu, Indonesia**

Mar 2021 - Mar 2022

Data, System and Infrastructure Lead (Contract)

Emergency deployment to the Balongan refinery crisis response team following a major industrial incident. Built the entire data and IT infrastructure for rapid-response operations from the ground up.

- Led the development of a data collection system for evacuees, resulting in a real-time evacuation shelter dashboard built with Microsoft Power BI, utilized by Pertamina Management, BNPB, and featured in mass media.
- Designed and implemented a comprehensive web application to collect and manage data on affected residents and properties, covering validation, compensation estimation, automated document generation, and payment processing.
- Developed a compensation tracking dashboard connected to the application's MySQL database, enabling efficient monitoring and reporting via Power BI.
- Coordinated closely with internal management, finance teams, and external stakeholders—including private banks—to streamline and execute wire transfer processes.
- Directed the planning and deployment of field ICT infrastructure, including network configuration and print server setup, in collaboration with the corporate ICT department.

PT Kilang Pertamina Internasional - **Indramayu, Indonesia**

Sep 2020 - Feb 2021

Human Capital Business Partner Intern

Selected for Pertamina's PMMB program within Human Capital at Refinery Unit VI. Delivered a reporting solution that was subsequently adopted as the national standard across all Pertamina refineries.

- Developed an innovative solution to digitalize Human Capital (HC) monthly reports using Microsoft Power BI, which was later adopted by other refineries nationwide. Also supported the implementation of a comprehensive refinery dashboard for Directors' reporting.
- Conducted business process analysis to identify inefficiencies and proposed IT-based solutions, including the development of custom web applications to support digital transformation initiatives.
- Automated repetitive administrative tasks by creating Excel-based applications using Microsoft Visual Basic for Applications (VBA), enhancing team productivity and accuracy.

Universitas Winaya Mukti - **Sumedang, Indonesia**

Jan 2014 - Dec 2019

System Administrator & Web Developer

Managed the university's complete web infrastructure and public-facing digital systems, ensuring continuous 24/7 operations as the sole technical resource.

- Developed and maintained the university's homepage and the Penerimaan Mahasiswa Baru (new student admission) application, enhanced the university's digital presence and streamlining the enrollment process.
- Administered the university's offsite network and web infrastructure, consistently ensuring 24/7/365 server uptime over a four-year period through proactive monitoring and maintenance.

Education Level

Institut Teknologi Nasional Bandung - **Bandung**

Aug 2017 - Aug 2024

Bachelor of Computer (S.Kom), 3.87/4.00

- Selected as a presenter at Pekan Ilmiah Nasional (PIMNAS) 33, organized by the Ministry of Research, Technology, and Higher Education, showcasing innovative academic research at the national level.
- Served as a committee member for the 1st and 2nd FoITIC (Forum of Informatics and Computer Engineering International Conference), contributing to event organization and international academic collaboration.
- Appointed as a teaching assistant for the Interoperability course, supporting lecture delivery, student mentoring, and assessment in systems integration and data exchange topics.

Hungarian University of Agriculture and Life Sciences - **Hungary**   Sep 2018 - Feb 2019

Credit Transfer Mobility, Faculty of Mechanical Engineering, 5.00/5.00

- Completed coursework in Fundamentals of Enterprise, Quality Management, Computer-Aided Design (CAD), Electronics, Informatics I, and Open Lab I, gaining cross-disciplinary exposure to mechanical and information engineering.
- Engaged in international student activities and collaborative learning environments, enhancing cross-cultural communication skills and global engineering perspectives through hands-on classes and project-based learning.

Skills, Achievements & Other Experience

- **Hard Skills**: SvelteKit, Pocketbase, C, Python, JavaScript, LUA, PHP, HTML, SQL, Microsoft Power BI, Computer Aided Design, 3D-Printing, CNC Laser/Router, Embedded Systems (Arduino, STM32, ESP)
- **Projects** ⊘ (2025): Developed a custom web-based AHP questionnaire system to collect and calculate weighted ESG priorities from respondents, enabling data-driven decision-making for organizational sustainability initiatives.
- **Projects** (2021): Dashboard Human Capital PT Kilang Pertamina International • Developed a Human Capital Dashboard, incorporating KPIs and Human Capital metrics across all Pertamina refinery units in Indonesia. • Officially launched by the Vice President of Human Capital, the dashboard provided executives with data-driven insights for strategic workforce management and decision-making.
- **Achievements** (2016): Juara 1 Desain Web Nasional Tingkat SMA/SMK • Olimpiade TIK Nasional
- **Projects** (2021): Whatsapp Chat Bot - Covid Ranger RU VI Balongan • Designed and developed the WhatsApp Chat Bot application from the ground up, creating a Covid-19 information center and exit permit system for Bumi Patra Residence. • Enabled residents to request exit permits directly via WhatsApp, with permits subject to approval by supervisors. • Successfully scaled the system to accommodate more than 3,000 residents, managing around 700 daily WhatsApp conversations.