ADITYA LUCKY ZULKARNAEN

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ROTOWIJAYAN KP.II/24-A Yogyakarta

Passionate developer who excels in crafting scalable architectures and thrives under pressure, converting complex technical bottlenecks into seamless, scalable, production-ready systems.

Work Experiences

Freelance Web Developer - **Yogyakarta, Indonesia** Feb 2026 - Aug 2026

Full-Stack Developer

Partnered with multiple national-level university event committees to design, develop, and deploy custom digital platforms. Delivered tailored web solutions for UGM Cup, Farmasi Cup, and Civil in Action to streamline tournament management, ticketing, and participant monitoring.

- UGM Cup 2026: Engineered an interactive tournament bracket system and real-time live score feature, enabling seamless tracking of match progressions for over 300 national-level participants.
- Farmasi Cup 2026: Developed a high-end, responsive landing page and information for a futsal competition, fun run, and music concert utilizing frameworks like Next.js to translate complex UI/UX designs into functional web interfaces.
- Civil in Action 2026: Implemented a comprehensive competition registration, streamlining registration pipeline processes and data management for event organizers.

KATY SMAN 1 Yogyakarta - **Yogyakarta, Indonesia** Feb 2025 - Nov 2025

Frontend Mobile Developer

KATY (Keluarga Alumni Teladan Yogyakarta) is the official alumni association of SMA Negeri 1 Yogyakarta (Teladan). Dedicated to connecting thousands of alumni across generations, KATY serves as a robust network that fosters professional collaboration, community support, and continuous contribution to our alma mater and society.

- Developed a cross-platform mobile application featuring an intuitive and user-friendly UX specifically optimized for senior users.
- Built an interactive alumni map system enabling users to discover fellow alumni residing in their current city along with their contact information.

Balai Pengelolaan Air Limbah dan Pengembangan Jasa Konstruksi - **Yogyakarta, Indonesia** Feb 2026 - Jun 2026

Frontend Developer

Balai Pengelolaan Air Limbah dan Pengembangan Jasa Konstruksi, a technical implementation unit under the Department of Public Works, Housing, Energy, and Mineral Resources of the Special Region of Yogyakarta (Dinas PUP-ESDM DIY).

- Developed an interactive web-based mapping system to monitor and visualize manhole and pipeline assets across Yogyakarta.
- Implemented a comprehensive reporting/complaint system allowing users to submit infrastructure issues efficiently.
- Built an asset status management feature enabling administrators to update and track the resolution status of compromised assets.

Education Level

Universitas Gadjah Mada - **Yogyakarta, Indonesia**

Applied Bachelor Software Engineering

SMA Negeri 1 Yogyakarta - **Yogyakarta, Indonesia** Jun 2021 - Jul 2024

High School Diploma in Natural Science

Organisational Experience

GAMAFORCE - **Yogyakarta, Indonesia** Dec 2024 - Present

Software Programmer

Gadjah Mada Flying Object Research Center is Universitas Gadjah Mada flying robot team engaged in research and development of Unmanned Aerial Vehicles (UAVs).

- Engineered a web-based Ground Control Station (GCS) for Unmanned Aerial Vehicles (UAVs) using React and Express, integrating the MAVLink protocol via mavpyredis to ensure reliable real-time telemetry and drone communication.
- Developed robust backend services for complex flight mission analytics, such as heatmap generation, image segmentation, and orthomosaicking (image stitching).

Google Developer Groups on Campus UGM - **Yogyakarta, Indonesia** Dec 2025 - Jul 2026

Hacker Frontend

Google Developer Groups on Campus (GDGoC) UGM is a Google-supported university community dedicated to fostering tech

innovation. The organization bridges the gap between academic theory and practical application by empowering students to build scalable software solutions and compete in high-impact hackathons.

- Engineered a full-stack mobile application aimed at providing non-invasive, early-stage Tuberculosis (TB) screening through the advanced analysis of cough audio recordings.
- Integrated sophisticated audio-processing AI architectures, such as Google's HeAR AI model, within the mobile environment to accurately process and classify respiratory sounds for preliminary medical screening.
- Awarded the Top 5 Finalist position at the highly competitive GDGoC UGM Hackathon, recognized by judges for the system's technical complexity.

UGM Blockchain Club Jan 2026 - Present

Backend Mentee

An academic and technical community at Universitas Gadjah Mada focused on peer-to-peer mentorship, decentralized application (dApp) development, and researching cross-chain blockchain technologies.

- Participated in an intensive technical mentorship program focused on bridging traditional backend frameworks with Web3 architecture and decentralized protocols.
- Collaborated with fellow developers and mentors to research and implement DeFi solutions and cross-chain protocols, optimizing data flow between on-chain networks and off-chain databases.
- Managed blockchain network deployments, actively troubleshooting transaction errors and resolving smart contract deployment issues on the Monad testnet to ensure reliable system performance.

Skills, Achievements & Other Experience

- **2nd Place Winner at Monad Blitz Hackathon** (2026): Awarded 2nd Place for developing the VISTA Protocol, an innovative decentralized solution that seamlessly monetizes ad-watching for users across partnered social media platforms. Engineered a robust cross-chain architecture and deployed smart contracts on the Monad testnet, ensuring high-speed, secure, and transparent reward distributions.
- **Granted National Funding recipient - PKM-KC 2026** (2026): Secured prestigious national funding from the Ministry of Education under the PKM-KC 2026 program to develop a non-invasive hemoglobin detection device aimed at stunting prevention in pregnant women. Engineered an IoT-based screening hardware integrating Photoplethysmography sensors with a machine learning model to accurately detect early signs of anemia in real-time.
- **Hard Skills** (2026): ReactJS, NextJS, TailwindCSS, ExpressJS, Supabase, Firebase, SvelteKit, Java, JavaScript, Laravel, PHP, React Native, Flutter, Kotlin, Fast API, Docker, TensorFlow, PyTorch, Python, Solidity, HTML, CSS, Figma, Canva, Linux