PUTRA ZAKARIA MUZAKI

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SUMMARY

Software Engineer with experience building scalable full-stack architectures and enterprise web systems. Specialized in modernizing systems through micro-frontend architectures, integrated with highly maintainable APIs and transitioning into scalable microservices. Passionate about delivering high-performance technical solutions, with additional expertise in integrating predictive machine learning models.

WORK EXPERIENCE

Software Developer, Delta HQ PTE. LTD. (Contract) Jul 2026 – Present

- Developed cross-platform features in Golang while working across 3 different engineering teams, including a tool that lets users manage their property data in one central place.
- Improved the deployment process by setting up CI/CD pipelines on GCP to automate database migrations, wrote unit and integration tests to keep the system stable, and documented APIs for smoother team collaboration.
- Standardized how time data is handled across platforms, and wrote PRDs for existing systems to fix workflow inconsistencies and create a smoother handover process for new teams.

Full Stack Developer, PT Amerta Indah Otsuka (Internship) Jan 2025 – Jun 2026

- Independently developed 5+ internal web applications and maintained 10+ production data systems using Angular and Express.js to track daily manufacturing workflows.
- Modernized legacy monolithic frontend into Micro-Frontends architecture by engineering reusable Angular components, improving the scalability and development speed of internal production tools.
- Implemented an ML-integrated defect prediction pipeline, enabling early identification of pressure-failure products before reaching quality control.
- Developed automation features that eliminated manual calculation across 5+ production forms and reduced repetitive data entry for daily operators.

IoT Researcher, Politeknik Negeri Malang (Research) Jul – Nov 2025

- Secured Ministry of Education funding (1,590 of 35,834 applicants) for "HiJack," an IoT wearable designed for early hypothermia detection.
- Engineered a LoRa-based prototype to monitor hiker vitals (body temperature, local temperature, and location tracking) in areas without internet signal.
- Validated sensor accuracy through field trials, producing technical documentation and public-facing content on mountain safety technology.

EDUCATION

D4 Informatics Engineering, Politeknik Negeri Malang Aug 2022 – Jun 2026

- GPA: 3.88/4.00
- Thesis: “Prediksi Produk Cacat Akibat Kegagalan Tekanan Botol Menggunakan Machine Learning Pada Proses Produksi Minuman”

PROJECTS

Frozen Food Stock Opname System (Frozeria) May 2026

BNSP Software Programming Certification Project - Full Stack Developer

- Built an inventory system using Angular, Express.js, and MySQL with a dashboard featuring search, filtering, pagination, and dynamic KPI cards for low-stock and out-of-stock tracking.
- Enforced data integrity through async image uploads and confirmation-gated deletion flows, reducing operator errors.

Soundtrack Fitting for Age (SoundFit) Sep – Dec 2024

Biometric Music Recommendation App - Full Stack Developer

- Developed a Flutter mobile app using facial recognition to detect user age and serve generation-specific playlists, powered by a custom ML demographic analysis pipeline.

- Architected a serverless backend on Firebase, managing user authentication, real-time playlist storage, and model hosting.

Sistem Administrasi Terpadu untuk Rukun Tetangga (SatuRT) Feb – Jun 2024

Neighborhood Governance Platform - Full Stack Developer

- Engineered a Laravel + Tailwind administration platform to digitize and visualize demographic resident data and financial records for 100+ residents, replacing manual paper-based workflows.
- Developed a Decision Support System to objectively rank and prioritize community infrastructure proposals.

VOLUNTEERING

Play IT, Department of Information Technology Oct – Nov 2024

IT Skills Competition - Event Coordinator

- Designed technical scoring rubrics and competition materials for the Web Design category, serving as a mentor to clarify requirements for 30+ participants.
- Coordinated the event timeline and resource allocation, ensuring the smooth execution of the competition schedule and fair assessment processes.

Hacktoberfest, Workshop Riset Informatika Oct 2023

Open Source Workshop - Logistics and Consumption Division

- Managed on-site operations and catering requirements to 130+ attendees and speakers.
- Executed resource planning, ensuring the timely distribution of meals and equipment to maintain event efficiency.

Prastudi, Himpunan Mahasiswa Teknologi Informasi Aug – Sep 2023

Freshman Orientation Program - Medical and Safety Division

- Directed health protocols for 500+ participants, managing first-aid response and medical inventory to ensure zero critical incidents.
- Enforced disciplinary standards and attendance, monitoring equipment readiness and compliance to maintain organizational order.

ACHIEVEMENTS

- **National Finalist -** Program Kreativitas Mahasiswa (PKM) 2026
- **Funded Grant Recipient -** Program Kreativitas Mahasiswa (PKM) 2025
- **Gold Medal, Mathematics Olympiad -** Prisma Science Competition II 2022
- **Grade A (Excellent), Mathematics Olympiad -** National Student Olympiad Expo 2022

SKILLS

Tech Stack: JavaScript, TypeScript, Python, Angular, Express.js, Next.js, FastAPI, Flutter, Laravel, Golang.
Databases & Cloud: MySQL, PostgreSQL, Firebase, Google Cloud Platform, Cloudflare, Docker.
Concepts: REST API Design, Micro-Frontends Architecture, ML Integration & Pipelines, Decision Support Systems.
Languages: Indonesia (Native), English (Professional Working Proficiency - TOEIC: 805).