

Andika Rizky Harahap, S.Kom.

Full-Stack Developer with Security Focus

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SUMMARY

Full-Stack Developer with Security Focus and hands-on experience in modern application development, relational database architecture, and web application security assessments. Proven track record in conducting authorized penetration testing (OWASP Top 10) for regional government institutions, developing municipal utility systems and SCADA monitoring at PDAM, and building AI-driven SaaS automation platforms. Experienced across the full software engineering lifecycle—from requirements analysis, API design, and frontend engineering to database optimization and secure-by-design production deployments.

EDUCATION

SMAN 1 Cibadak	Sukabumi, Indonesia
Social Sciences	2019 - 2022
Nusa Putra University	Sukabumi, Indonesia
Bachelor of Informatics Engineering (S.Kom, Graduated 2026) – GPA: 3.30/4.00	2022 - 2026

WORKING EXPERIENCE

PDAM Tirta Pakuan Bogor City	Bogor, Indonesia
Software Developer & Automation Maintenance (Internship)	February 2025 - August 2025
- Developed an employee attendance application, a water turbidity detection monitoring system, and a digital financial transparency app for clean water subscription billing. - Operated and maintained SCADA software systems, and executed network installation and troubleshooting across operational water treatment facilities. - Supported real-time 3D/AR visualization initiatives and documented national-scale corporate assemblies (Annual Shareholders' Meeting, National Managers' Meeting), including producing executive presentation materials. - Mentored junior interns in the IT department and served as technical liaison with operational divisions to ensure service satisfaction.	
DPRD Kabupaten Sukabumi (Regional Government Agency)	Sukabumi, Indonesia
Web Application Penetration Tester (Internship)	January 2026 - February 2026
- Performed manual and automated web application penetration testing on DPRD Kabupaten Sukabumi public web applications using Burp Suite and Wireshark, adhering to OWASP Top 10 methodology to identify vulnerabilities and test Cloudflare WAF resilience. - Identified and remediated critical security vulnerabilities and data leak vectors, and delivered comprehensive formal technical finding reports with actionable mitigation roadmaps for administrative leadership.	
Freelance Client Solutions	Sukabumi, Indonesia
Full-Stack Web & AI Automation Developer	May 2024 - September 2024
- Delivered custom web and application solutions for various business clients, ranging from local retail operations to digital SaaS platforms. - Built AI-driven automation workflows (n8n, LangChain, LLM chatbots) that streamlined repetitive manual administrative processes. - Optimized site performance and technical SEO visibility while configuring robust relational database layers via Prisma ORM and PostgreSQL. - Integrated online payment gateways (Midtrans, Xendit, and Pakasir) ensuring PCI-compliant, secure customer transaction flows. - Rapidly prototyped interactive UI/UX design systems in Google Stitch and Figma, accelerating engineering handoffs and client sign-offs.	

KEY SKILLS

Web Development:	Next.js, React, Node.js, TypeScript, REST API Design, Authentication (JWT/RBAC), Tailwind CSS
Databases & ORM:	PostgreSQL, MySQL, Prisma ORM, MongoDB, Database Optimization & Schema Design
Programming Languages:	TypeScript, JavaScript, Python, Java, C++, SQL, HTML5, CSS3
Penetration Testing:	OWASP Top 10, Burp Suite, Wireshark, Linux, Active Fuzzing, WAF Testing & Remediation
AI & Automation:	SCADA Systems, Prompt Engineering, Zod Schema Enforcement, n8n, LangChain, TensorFlow
Tools & Design:	Git, Docker Compose, Linux/Unix CLI, Figma, Google Stitch, Canva, Blender

CERTIFICATIONS & TECHNICAL CREDENTIALS

[Core Certification] MikroTik Certified Network Associate (MTCNA)	Issued Jul 2023
[Core Certification] HCIA — Huawei Cloud Services	Issued Sep 2023
[Core Certification] Linux Essentials — Cisco Networking Academy & LPI	Issued Aug 2023
• Cyber Security Defense Training — Cyber Academy Indonesia	Issued Apr 2024
• Workshop Cloud & Web Security — IDCloudHost	Issued Nov 2024
• Applied Technology Competency — Intern Human Side Technology	Issued Aug 2024
• Public Speaking & Presentation Skills — GTTCID	Issued Jul 2024
• National Technology Seminar — Sentimeter	Issued Mar 2023
[Academic Standard] TPA-TKDA (Academic Potential Test) — PLTI	Issued Aug 2024

FEATURED PROJECTS

DevFlow AI — PRD Generator & Architecture Studio (SaaS Platform)

- Architected a full-stack SaaS platform (Next.js, TypeScript, Prisma, PostgreSQL) that auto-generates structured PRDs, normalized SQL schemas, and architecture diagrams via AI with JWT authentication, RBAC, and tiered pricing.
- Applied deterministic Zod schema validation and prompt compression, driving token cost down to Rp 91 per generation cycle (GPT-4o-mini benchmark) with zero syntax errors.

OTOPen — Web & API Security Scanner (Security Tooling)

- Developed an automated web and API vulnerability assessment tool covering 50 test cases aligned with OWASP Top 10, available as a lightweight Python CLI (oto.py) and interactive Next.js dashboard.
- Implemented active injection fuzzing and differential blind SQLi verification (time-delta delay & boolean math) to minimize false positives.

Café Kenanga — Real-Time Food Ordering & Table Reservation Platform

- Developed a production web application (Next.js, WebSockets, PostgreSQL) allowing guests to browse menus, order meals in real-time, and reserve dining tables online, reducing cashier queue turnaround (estimated ~40% faster based on cashier flow simulation).

Thesis Project — Skin-Tone Outfit Recommender with 3D AR Try-On (WebXR)

- Engineered a web-based fashion recommendation system using CNN (EfficientNet-B0) and KNN with Cosine Similarity across a balanced dataset of 1,890 images, paired with in-browser 3D AR virtual try-on via MediaPipe Pose and Three.js.

ORGANIZATIONS & LEADERSHIP

Himpunan Mahasiswa Teknik Informatika (HIMA IT), Nusa Putra University	Jan 2023 – Jan 2024
Active Member & Technical Division — Coordinated computing workshops and academic tech seminars.	
Advanced Online Network & Web Development Bootcamp, Nusa Putra University	Sep 2024 – Dec 2024
Bootcamp Participant — Completed intensive training on modern web architectures and routing.	
Community Service Program (KKN), Cikahuripan Village	Jul 2024 – Aug 2024
Village Digitalization Staff / Participant — Assisted digital literacy and administrative workflow mapping.	
Independent Portfolio & Investment	Jan 2024 – Present
Active Investor — Applied risk-budgeting and analytical financial management.	