

ALFA RIZI

SOFTWARE ENGINEER

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PROFESSIONAL SUMMARY

Software Engineer (Informatics Management D3 student, GPA 3.6/4.0) with proven experience engineering distributed microservices, enterprise modular monoliths, AI/RAG pipelines, and interactive web platforms. Strong technical mastery in Java (Quarkus 3.15, Spring Boot 3.2, Spring Cloud Gateway), TypeScript/JavaScript (Next.js 14/16, React 19), Python (FastAPI, ChromaDB), and PostgreSQL (PL/pgSQL triggers, views, Flyway), with Docker containerization and automated GitHub Actions CI/CD.

TECHNICAL SKILLS

Languages:	Java 17, TypeScript, JavaScript (ES6+), Python 3.12, SQL, C
Backend & Systems:	Quarkus 3.15 LTS, Spring Boot 3.2, Spring Cloud Gateway, FastAPI, Express.js, Double-Entry Escrow
Frontend Development:	Next.js 14/16 (App Router), React 18/19, Tailwind CSS v4, Web Speech API, Web Audio API, Canvas API
Databases & Cache:	PostgreSQL (Triggers, Views, Functions), Redis 7, Flyway Migrations, Drizzle ORM, ChromaDB
DevOps & Tooling:	Docker, Docker Compose, GitHub Actions (CI/CD), ArchUnit, Testcontainers, Git, Linux CLI, OpenAPI

FEATURED ENGINEERING PROJECTS

ReLoop — Enterprise Circular-Commerce Platform & Escrow Architecture | Java 17, Quarkus 3.15 LTS, Next.js 14, PostgreSQL 16, Redis 7 2026
Demo: <https://reloop.biz.id> | Code: github.com/a1fariz/ReLoop

- Architected a Quarkus 3.15 modular monolith across 25 bounded contexts with ArchUnit boundary verification and transactional outbox worker.
- Engineered a double-entry escrow ledger (DR=CR) and 15-minute anti-hoarding checkout leases with pessimistic locks (SELECT ... FOR UPDATE).
- Integrated Next.js 14 frontend with TanStack Query and Redis catalog caching, achieving low latency and zero inventory race conditions.

ApexGrid — F1 Race Ticket Reservation & Microservices Platform | Java 17, Spring Boot 3.2, Spring Cloud Gateway, PostgreSQL, React 18, 2026
Docker
Code: github.com/a1fariz/ApexGrid

- Architected a 3-service distributed system (Gateway, User, Race) with Spring Cloud Gateway and stateless JWT RBAC security.
- Synchronized ticket inventory via PostgreSQL PL/pgSQL triggers with an automated 30-minute reservation expiry worker.
- Built an interactive React 18 admin analytics panel with OpenAPI/Swagger docs; containerized with Docker Compose.

StudyMate AI — Asynchronous RAG Document Knowledge Assistant | Python 3.12, FastAPI, ChromaDB, Google Gemini 2.0 Flash, Docker 2026
Code: github.com/a1fariz/StudyMateAI

- Built an asynchronous RAG pipeline parsing textbook PDFs via PyMuPDF with ChromaDB vector search and exact page citations.
- Orchestrated Gemini 2.0 Flash for automated summaries, quizzes, and 3D flashcards; enforced a 60 req/min token-bucket rate limiter.

Vanguard IELTS — Academic Preparation & SRS Platform | React 19, TypeScript, Vite, Tailwind CSS v4, Web Speech API 2026
Demo: <https://vanguard-ielts.vercel.app> | Code: github.com/a1fariz/Vanguard-IELTS

- Developed a 4-skill IELTS preparation suite (Listening, Reading, Writing, Speaking) covering CEFR A1 to C1 proficiency levels.
- Implemented a SuperMemo-inspired Spaced Repetition (SRS) vocabulary engine and Shadowing Studio with native Web Speech synthesis.

PROFESSIONAL EXPERIENCE

Lead Intern — IT & Business Operations 2025 – Present
PT Resik Cemerlang (Pasim Group) Bandung, Indonesia

- Directed a 5-person intern team managing day-to-day IT support operations, hardware diagnostics, and workstation SLA ticket compliance.
- Enforced OS security patching, software configurations, and antivirus definition updates across corporate laptops.
- Validated technical specifications across thousands of medical device asset entries, ensuring database integrity and audit readiness.

EDUCATION & TRAINING

Universitas Nasional PASIM Expected May 2027
Associate Degree in Informatics Management (D3) — GPA: 3.6 / 4.0 Bandung, Indonesia

- PUB Intensive Technical Scholarship (2024 – Present): Logic & C, Data Structures, Relational Databases, Advanced Java Development, and React Development.

CERTIFICATIONS & CREDENTIALS

Python for Everybody Specialization — University of Michigan (2026)	Programming for Data Science with Python — HarvardX (2025)
Certified Entry-Level Python Programmer (PCEP) — Python Institute (2025)	Introduction to Cloud Computing — IBM (2026)
Professional English Communication Skills — Arizona State University (2026)	Cybersecurity Fundamentals — Rochester Institute of Technology (RIT) (2025)