

# Restu Ahmad Ar Ridho

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## PROFESSIONAL SUMMARY

Software Engineer and final-year Computer Science student at University of Indonesia (GPA 3.94/4.00) with a strong foundation in Backend Engineering and Distributed Systems. Experienced in building scalable RESTful APIs, enterprise-level web applications, and AI-integrated systems through engineering roles at Paragon and Nanovest. Proficient in the TypeScript ecosystem, alongside Python and Java, passionate about software craftsmanship, clean architecture, and solving complex problems at scale.

## EDUCATION

University of Indonesia | Faculty of Computer Science Aug 2022 – Exp. July 2026

Bachelor of Computer Science | GPA: 3.94/4.00 Depok, Indonesia

- **Relevant Coursework:** Software Engineering, Databases, Advanced Programming, Data Structures & Algorithms, Web Application Architecture, Security-Driven Software Development, Operating Systems, Computer Networks, Introduction to AI & Data Science, Data Mining.
- **Bachelor Thesis:** Asynchronous Federated LoRA with Staleness-Aware Aggregation.

## EXPERIENCES

Software Engineer Intern Aug 2025 – Feb 2026

PT Paragon Technology and Innovation (ParagonCorp) South Jakarta, Indonesia

- Engineered robust frontend architectures for two core enterprise platforms using the Next.js framework, optimizing complex RESTful API consumption and managing asynchronous data synchronization.
- Spearheaded the architectural refactoring of UI components and global state management, delivering over 110+ production commits to ensure seamless asynchronous data synchronization.
- Fortified overall system reliability by actively contributing to the development of comprehensive E2E test suites using Cypress, successfully boosting test coverage to 65% and eliminating critical logic bugs prior to production.

QA Engineer Intern Feb 2025 – Aug 2025

PT Tumbuh Bersama Nano (Nanovest) South Jakarta, Indonesia

- Executed meticulous manual functional and regression testing across 7 distinct Epic projects (including Web3 Wallet and Crypto Exchange), ensuring a bug-free user experience and seamless synchronization with backend services.
- Validated complex API responses and data integrity by identifying critical edge cases and boundary conditions, providing detailed technical bug reports that streamlined the development cycle.
- Explored automated testing workflows and provided detailed technical bug reports, successfully identifying and documenting over 60 critical application bugs that streamlined the development cycle.

Teaching Assistant Jan 2024 – Present

Faculty of Computer Science, University of Indonesia Depok, Indonesia

- Mentored undergraduate students across 6 core computer science courses, including Advanced Programming, Databases, and Software Engineering Project, providing technical guidance in Java, Django, and Flutter.
- Evaluated and provided in-depth code reviews for lab assignments, enforcing strict engineering standards, design patterns, and grading complex SQL query optimizations.
- Led multiple student project groups through the entire Software Development Life Cycle (SDLC), providing architectural oversight and debugging support to ensure high-quality software deployment.

## PROJECTS

AI Report Generator | [Klinik Pintar - PPL A1 Team](#) | [Pitch Deck](#), [Demo](#), [GitHub](#) Feb 2025 – May 2025

- Engineered a scalable natural-language-to-SQL pipeline by integrating Next.js with DeepSeek and Gemini LLMs, enabling automated and precise analytics generation.
- Implemented a Retrieval-Augmented Generation (RAG) pipeline, utilizing Google AI libraries for text embeddings and PostgreSQL (pgvector) for efficient vector similarity searches.
- Collaborated across the full software development lifecycle, ensuring maintainable codebase through rigorous peer reviews and streamlining application deployment via Docker.

Books Buddy | [Jago Bikin Web Team](#) | [Pitch Deck](#), [Copyright](#), [GitHub](#) Dec 2023

- Secured official intellectual property rights (Copyright: EC00202436374) for a full-stack application, winning the "Best Web and Mobile App" award out of multiple projects in the Platform-Based Programming course.
- Spearheaded the application development and engineered the core backend architecture from the ground up, implementing the Django framework and REST APIs to establish a robust and scalable foundation.
- Optimized client-server communications by architecting asynchronous data fetching workflows using JavaScript, ensuring seamless and dynamic cross-platform interactions.

## SKILLS

**Languages:** Python, Java, TypeScript, JavaScript, SQL, Dart

**Frameworks & Libraries:** Spring Boot, Django, Next.js, NestJS, Express.js, Prisma, Flutter, Tailwind CSS

**Databases:** PostgreSQL, pgvector

**Infrastructure & Tools:** Docker, SonarQube, Git/GitHub, Postman, Swagger, Google AI SDK, Grafana, Prometheus

**Concepts:** Distributed Systems, System Design & Architecture, RESTful API Design, Asynchronous Processing, Retrieval-Augmented Generation (RAG), CI/CD, Automated Testing