AURA KRISTIAN SUMOWIDJOJO

Backend Engineer | Software Engineer | Jakarta, Indonesia

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PROFESSIONAL SUMMARY

Backend-focused Software Engineer with hands-on experience developing features, migrating Spring Boot microservices and optimizing high-concurrency systems in production. Experienced in reactive–blocking hybrid architectures, Kafka, MongoDB, PostgreSQL, Docker, and applied AI research.

WORK EXPERIENCE

PT Global Digital Niaga Tbk (Blibli) | Backend Developer Intern   September 2025 - Present

Developed and maintained Java Spring Boot microservices supporting the SIPLah government procurement platform.

- **Microservice Migration & Refactoring:** Contributed to the migration of core SIPLah services from Spring Boot 2.3 to 2.7, refactoring user session handling from blocking to reactive (Mono-based) patterns while maintaining compatibility with legacy blocking plugins.
- **Infrastructure, Cloud & Data Reliability:** Resolved production issues during GCE to GKE migration (NFS, networking, env and pod security configs) and fixed MongoDB race conditions by introducing ReactiveMongoTemplate for atomicity and eliminating optimistic locking failures during high-traffic operations.
- **Code Quality, Testing & Security:** Improved test coverage (92%+) by adding integration and unit tests for legacy code paths using JUnit and Mockito, resolved SonarQube code smells, remediated Trivy-detected vulnerabilities by upgrading or replacing insecure dependencies and cleared technical debt by removing obsolete feature flags.

Binus University | Mentor / Teaching Assistant   September 2024 - December 2024

- Mentored students in Computer Vision and Web Programming, improving their programming skills and algorithmic understanding.

RESEARCH AND PUBLICATIONS

- **Authentic Dataset Development and Exploration of Cross-Language Transfer Learning for Aksara Jawa Recognition |** *Accepted at ICHGIT International Conference*
  - Developed a dataset of 3,528 authentic handwritten Javanese characters and engineered a transfer learning strategy (Devanagari), achieving a **98.48% F1-score** (outperforming ImageNet baselines).
- **Exploring the Impact of Image Downscaling Algorithms on Color Perception |** *Published at iSemantic International Conference (2024)*
  - Conducted quantitative analysis (QCPA) on downscaling algorithms; proved RDPID achieves optimal fidelity (SSIM 0.768) compared to content-aware scaling (20.8% retention).

EDUCATION

BINUS University   Tangerang, ID

Bachelor of Computer Science, GPA 3.75/4.0   Aug 2022 - Aug 2026 (Expected Graduation)

- **Study Abroad**: Xi'an Jiaotong-Liverpool University, China (Feb – Jun 2025)

SKILLS

- **Core & Backend:** Java, Python, SQL, Spring Boot (2.7/3.5), WebFlux, Virtual Threads (Loom), Kafka
- **Data & DevOps:** MongoDB, PostgreSQL, Redis, Elasticsearch, Docker, Jenkins, SonarQube, GKE
- **Frontend & AI**: React, Tailwind, TensorFlow, PyTorch, Computer Vision
- **Soft Skills**: Problem Solving, Analytical Thinking, Communication, Team Collaboration
- **Languages**: Indonesian (native), English (fluent, IELTS 7.0), Chinese (novice)
- **Certifications**: Machine Learning A-Z (2024)