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 & Data Reliability:** Facilitated GCE to GKE migration by configuring Kubernetes manifests and diagnosing startup failures (NFS mounts, network gaps). Resolved MongoDB race conditions by implementing ReactiveMongoTemplate for atomic concurrent access.
- **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 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)