Arthur Carvalho Rodrigues

Backend Software Engineer • Java/Kotlin • Platform & Distributed Systems
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Computer Science undergraduate and backend engineer working on production Java/Kotlin services, service migrations, CI/CD, event-driven systems, and operational tooling. Experience in Software Architecture, Modernization, DevOps and Distributed Systems.

Professional Experience

Hotmart Belo Horizonte, MG
Junior Software Engineer *Oct 2026 - Present*
Software Engineering Intern *Oct 2025 - Oct 2026*

- Introduced Argo Rollouts canary deployments for the team's services across several repositories, added deployment notifications to chat, and connected rollout analysis to latency and error-rate metrics so releases automatically rolled back when defined thresholds were exceeded.
- Reduced the Kotlin/Spring quality pipeline from ~17 to ~8 minutes (53%) by parallelizing test execution and replacing broad Spring application contexts with smaller contexts tailored to specific test suites, shortening feedback before merge and release.
- Built coding-agent workflows to replace reads from a legacy monolithic database with calls to the owning microservices. Work forecast as 12-18 months for two dedicated engineers was completed by one engineer in 6 months with no major regressions; also published shared domain instructions and reusable agent skills for the team.
- Handled customer-facing support and production bugs across legacy and modern services. Fixed incorrect or slow SQL, optimized queries, and parallelized independent API calls; used recurring ticket patterns to add administrative endpoints that made common support cases faster to resolve and improved SLA adherence.
- Automated dependency maintenance with Dependabot auto-merge behind tests, smoke checks, and canary validation, reducing manual CVE remediation while keeping services close to current non-breaking dependency versions.
- Helped design and implement a ranking-management service with season transitions driven by AWS EventBridge. Defined the ETL contract with Data Engineering for participant metrics and positions, contributed to the data model and architecture, and reviewed changes with regression risk in mind.

NetProject Belo Horizonte, MG
Software Engineer *Apr 2024 - Oct 2025*

- Designed and implemented a document standardization feature where project managers described required structure, content, style, and formatting in a chat. The system turned those instructions into a reusable review configuration applied to each new contribution, returning a 0-100 score and specific feedback on what did not match the document rules.
- Structured the backend with Hexagonal Architecture so Redis-backed conversation state, PostgreSQL configuration and review results, and the external evaluation API stayed behind adapters instead of leaking into the application logic.
- Reduced API latency by 30% in production Python services through Redis caching while continuing to deliver backend features used by project managers.

Selected Engineering Projects & Open Source

Webtech Autograder - Lead architecture and development of an open-source assessment platform used by 400+ students, including isolated container execution and resource controls for Python, Java, JavaScript, and C/C++ submissions.

Distributed Transcode Worker - Built a Go worker that discovers CPU/GPU codec capabilities, pulls jobs from an orchestrator, reports progress, produces HLS output with FFmpeg, and only commits staged artifacts after successful completion.

inference4j - Core contributor and Maintainer; implemented a Silero voice-activity-detection wrapper on ONNX with recurrent model state, audio preprocessing, configurable segmentation, tests, examples, and documentation. Also improving spring-boot starter plugin alongside contributors.

Education & Skills

PUC Minas - B.S. in Computer Science *Expected Jun 2027*

Languages: Kotlin, Java, Python, Go, C/C++ **Backend & Data:** Spring Boot, SQL, Redis, REST APIs, Microservices
Cloud & Delivery: AWS (EventBridge, SQS), Kubernetes, Docker, Argo Rollouts, CI/CD, Helm.
Additional: DevFest 2025 invited speaker on software architecture and distributed transactions • Huawei Seeds for the Future - Cloud Computing & AI training.