

JAMES AMO

Backend Software Engineer

Accra, Ghana · Open to EU Relocation · +233 541 874 236 · kwame.amo.james@gmail.com
linkedin.com/in/james-ammo · github.com/amo95

PROFESSIONAL SUMMARY

Backend software engineer with 4+ years of experience building scalable, high-performance systems in investment banking and fintech. Specialising in Java, Scala, Kotlin, and Python across distributed architectures, payment middleware, and fraud detection systems. Proven track record of automating critical workflows at Morgan Stanley, integrating payment APIs processing 100+ daily transactions at GMoney, and architecting fraud detection orchestration at Tunic Pay. Experienced in modernising legacy codebases, implementing observability, and delivering production systems that reduce operational overhead.

TECHNICAL SKILLS

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| Languages | Java, Scala, Kotlin, Python |
| Frameworks | Spring Boot, Spring Data JPA, Spring MVC, Spring Security, Temporal (workflow orchestration) |
| Data & Messaging | PostgreSQL, DB2, MySQL, SQLite, Redis, Apache Kafka |
| Cloud & DevOps | AWS (S3, EC2, Lambda, CloudWatch, Route 53, CloudFront), Docker, CI/CD (Jenkins, GitHub Actions) |
| Practices | REST APIs, Microservices, Event-Driven Architecture, Observability, Agile/Scrum |

PROFESSIONAL EXPERIENCE

Backend Software Engineer | Tunic Pay | Remote (via turntabl) December 2024 – Present

Fintech company building intelligent payment infrastructure with fraud detection capabilities.

- Developing a fraud detection orchestrator using Kotlin and Python with Temporal workflow engine, routing transactions through intelligent fraud analysis pipelines before processing.
- Building and maintaining distributed worker services across 3 core microservices with multiple Temporal workers handling concurrent fraud evaluation workflows.
- Designing event-driven transaction flows that enable real-time fraud scoring and decision-making across payment channels.

Backend Developer (Freelance) | GMoney | Accra, Ghana January 2025 – July 2025

Mobile money and digital payments platform serving thousands of users across Ghana.

- Architected and built middleware powering core transaction flows including P2P transfers, bank-to-wallet operations, GCB account linking, and GhIPSS interoperability services, **processing 100+ transactions daily**.
- Integrated Mastercard and Brij payment APIs (inbound and outbound flows), expanding the platform's payment capabilities and third-party connectivity.
- Designed and implemented a customer loyalty rewards system, driving user engagement and retention across the platform.
- Implemented end-to-end observability with AWS CloudWatch, **reducing error rates** through proactive monitoring, alerting, and log-based debugging.

Contingent Software Engineer | Morgan Stanley | London, UK (via turntabl) February 2021 – November 2024

Global investment bank — Structured Equity Products technology team.

- Automated confirms generation for autocallable structured equity products, **increasing team productivity by 90%**.

- Developed a Python-based trade reflow tool that **reduced processing time from over 1 hour to 15 minutes**, eliminating a major operational bottleneck.
- Built a Spring Boot service API that automatically replays failed trades, **doubling developer efficiency** in incident resolution.
- Migrated a large-scale Scala monolith from Jackson Codehaus (v1) to FasterXML Jackson (v2), modernising serialisation/deserialisation across the entire codebase.
- Integrated health monitoring using Spring Boot Actuators, improving system observability and reducing mean time to debug production issues.
- Migrated SonarQube from Community to Enterprise edition, enhancing code quality reporting and test coverage visibility across the engineering team.

Co-Founder & Lead Backend Engineer | **InfuSI Technologies Ltd** | Accra, Ghana 2022 – Present

Software agency delivering mobile and web platforms; flagship product: Anyigba Land Security Platform.

- Led architecture and hands-on backend development for client projects including invoice management systems and business platforms using Java, Spring Boot, and PostgreSQL.
- Designed the Anyigba Land Security Platform — a property verification system featuring JWT authentication, role-based access control for multiple user types, event-driven notifications, and state machine-based verification workflows.
- Made technical decisions on system design, database architecture, API contracts, and deployment strategy (Railway, Docker) while coordinating a small engineering team.

EDUCATION

BSc Computer Science — Koforidua Technical University, Ghana

ADDITIONAL

- Mentored junior developers through the Global Code Summer Programme, providing hands-on technical instruction to emerging software engineers.
- Languages: English (fluent), Twi (native).