BRIAN MUIGAI

Backend Software Engineer | Java, Spring Boot, PostgreSQL, SQL Server

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SUMMARY

Backend engineer in the R&D team at Attain Enterprise Solutions Ltd, building Java service logic and improving the concurrency, performance and portability of PostgreSQL and SQL Server databases. Strong in relational data modelling, ACID transaction design and versioned schema migrations. Seeking a backend engineering role.

TECHNICAL SKILLS

Languages: Java (primary), SQL (PL/pgSQL, T-SQL), C# (.NET), Python, TypeScript, JavaScript
Backend: Spring Boot, Spring Security, Spring Data JPA, Hibernate, REST APIs, JWT authentication, Node.js/Express, Django
Databases: PostgreSQL, SQL Server (MS SQL), MySQL, Flyway migrations, Prisma ORM
Tools: Git, GitHub Actions (CI/CD), Docker, Maven, Gradle, Linux (Fedora), Bash, Neovim

PROFESSIONAL EXPERIENCE

Software Engineering Attaché, Research and Development
Attain Enterprise Solutions Ltd, Nairobi, Kenya | Oct 2026 - Dec 2026

- Build Java backend service logic with explicit transaction boundaries, so multi-step operations commit fully or roll back cleanly.
- Validate input at the API boundary and return consistent, structured error responses before requests reach the database.
- Ported production schemas, constraints and DDL between PostgreSQL and SQL Server, resolving dialect differences in data types and locking behaviour.
- Introduced Flyway migrations for a reproducible database state across environments, with schema changes under code review.
- Fixed write-path race conditions using explicit row-level locking and tuned transaction isolation levels.
- Diagnosed slow queries with execution plans (EXPLAIN ANALYZE), refactoring multi-table joins and adding composite indexes to improve read performance.
- Test and deploy backend and database changes across environments.

PROJECTS

Hospital Management System | Java, Spring Boot, PostgreSQL, Flyway
Attain R&D individual project, in development

- Independently designed and built from scratch a normalised 52-table schema across six modules (clinical workflows, auditing, financial ledgers, payroll), with constraint-enforced states and audit logs.
- Built versioned Flyway migrations and cursor-based pagination for large result sets.

Banking Ledger App | Java, Spring Boot, SQL Server, Spring Security

- Designed a relational schema and transactional flow for wallet-to-wallet transfers, using transaction boundaries to prevent duplicated or lost funds under concurrent transfers.
- Secured the API with BCrypt password hashing, stateless JWT filters and role-based access control (RBAC).

EDUCATION

Diploma in Software Engineering | Kenya Institute of Software Engineering and Professional Studies (KISEPS), Thika, Kenya | In progress

Secondary Education | Kerugoya Boys High School, Kirinyaga, Kenya

LANGUAGES

English and Swahili (proficient)