

# SAYED KASSEM

## Software Developer

Koura, Lebanon · +961 71 844 608 · sayed.kassem@proton.me · GitHub · LinkedIn  
Open to relocation: UAE · Saudi Arabia · Qatar · Egypt

### PROFESSIONAL SUMMARY

Backend-focused Software Developer with hands-on experience building production-grade RESTful APIs and distributed systems using Java, Spring Boot, PostgreSQL, Redis, and RabbitMQ. Proven ability to design asynchronous messaging pipelines, implement JWT authentication, enforce rate limiting, and deploy containerized microservices via Docker. Experienced in Agile workflows and actively seeking a Java backend role in a high-growth engineering team.

### TECHNICAL SKILLS

<b>Backend</b>	Spring Boot 3, Spring Security, Spring Data JPA, Spring AMQP
<b>Messaging</b>	RabbitMQ (AMQP), Dead-Letter Queues, Exponential Retry, Event-Driven Architecture
<b>Databases</b>	PostgreSQL, Redis (caching & rate-limiting), Firebase
<b>DevOps</b>	Docker, Docker Compose, Git, GitHub, Maven, Postman, Spring Actuator
<b>Languages</b>	Java (primary), SQL, TypeScript, JavaScript
<b>Concepts</b>	REST API, Microservices, JWT / RBAC, Flyway, JUnit 5, Mockito, CQRS

### TECHNICAL PROJECTS

#### Task Scheduler & Multi-Channel Notification System *Java · Spring Boot · RabbitMQ · Redis · PostgreSQL · Docker*

- Architected a REST API for task scheduling with async RabbitMQ event delivery; implemented Dead-Letter Queues and exponential-backoff retry guaranteeing zero message loss on consumer failure.
- Built a multi-channel notification dispatcher (email, SMS, push) with per-channel consumers, delivery-status persistence, and full PostgreSQL audit trail for compliance.
- Secured endpoints with JWT/RBAC, applied per-entity Redis caching with configurable TTL, Flyway versioned schema migrations, and full Docker Compose deployment.

#### Rate Limiter Service *Java · Spring Boot · Redis · Lua Scripting*

- Designed a distributed rate-limiting library using the Token Bucket algorithm with atomic Redis + Lua scripts, eliminating race conditions under high concurrent load without external locks.
- Exposed per-client configuration via REST API; enforced limits at sub-millisecond latency — directly applicable to API gateway and multi-tenant SaaS platforms.

#### URL Shortener *Java · Spring Boot · Redis · PostgreSQL*

- Built a high-performance URL shortening service using base-62 encoding with collision-safe ID generation and Redis caching delivering sub-millisecond redirect resolution at scale.
- Added analytics REST endpoints tracking click counts and referrer metadata, persisted in PostgreSQL with Flyway-managed schema versioning.

### PROFESSIONAL EXPERIENCE

#### Freelance Software Developer · Remote

2023 – Present

- Developed responsive e-commerce frontend interfaces using React and SCSS, focusing on reusable component architecture and performance optimization.
- Improved frontend-backend integration for a Machine Learning application by refactoring Flask REST API connections and error handling.
- Designed and deployed client websites using WordPress and Elementor, delivering full projects from wireframe to production.

#### Data Engineer Intern · Maaloomatiiaa Arabian Trading (MDS Group)

2022

- Collaborated on a Fraud Detection System, performing data validation and quality checks within ETL pipelines.
- Processed structured datasets using SQL and Knime Analytics Platform to prepare models for downstream analysis.

#### IT / Data Analyst · Lebanon

2021 – 2022

- Extracted and transformed large datasets using optimized SQL queries and advanced Excel (Pivot Tables, VLOOKUP).
- Ensured data integrity for large-scale data entries using specialized NSL software.

### EDUCATION

#### MSc. Computer & Communication Engineering

Lebanese International University

#### BSc. Computer & Communication Engineering · GPA: 3.7 / 4.0

Lebanese International University

### CERTIFICATIONS

SQL Certification (Advanced) · HackerRank

Knime Analytics Platform L1 · Knime