

MOHAMED ABDALGADER

Java Backend Developer

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SUMMARY

Final-year Computer Science student specializing in backend engineering with Java and Spring Boot. Built and deployed **production-style microservices** handling authentication, caching, service discovery, and CI/CD pipelines. Proven experience designing **secure, containerized REST APIs**, improving system performance, and enforcing **clean architecture and scalability principles** in real-world projects.

TECHNICAL SKILLS

- **Languages:** Java, C#, JavaScript, TypeScript, Python, C++, Go
- **Backend Frameworks:** Spring Boot, Spring Cloud (Eureka, Gateway, OpenFeign), ASP.NET Core MVC, Node.js (Express), Flask
- **Databases:** PostgreSQL, MySQL, SQL Server, MongoDB, Redis, SQLite, Oracle DB
- **DevOps & Tools:** Kafka, Docker, Docker Compose, Microservices Architecture, Git, GitHub Actions, CI/CD, Jira
- **Testing & Security:** JUnit, Mockito, XUnit, Testcontainers, OAuth2, JWT
- **Frontend:** React, Vite, JavaFX

PROJECTS

- **LinkGuard – Secure URL Expander & Analytics** [\[GITHUB\]](#)

Technologies: Java, Spring Boot, Spring Security, JWT, PostgreSQL, React, Redis, Docker, GitHub Actions, JUnit

- Engineered a non-blocking URL resolver using **Spring WebClient**, increasing API throughput by **30%** and reducing latency for high-traffic redirects.
- Implemented **Redis** as a dual-layer cache and real-time analytics engine, enabling sub-millisecond access to URL metrics and reducing database load.
- Designed a complete **CI/CD pipeline** using **GitHub Actions** to automate testing (JUnit) and container publishing. Orchestrated multi-container deployments (App, Postgres, Redis) using **Docker Compose** for consistent production environments.
- Secured REST endpoints with **Spring Security** and **JWT** (JSON Web Tokens) to enforce stateless authentication and protect user analytics data.

- **QuizHub - Microservices Assessment Platform** [\[GITHUB\]](#)

Technologies: Java, Spring Boot, Spring Cloud (Eureka, OpenFeign, Gateway), PostgreSQL, Docker, REST API

- Architected a scalable **Microservices** system, decoupling the application into 3 distinct services (Quiz, Question, and Service Registry) to allow independent scaling and deployment.

- Implemented **Service Discovery** using Netflix Eureka and a centralized **API Gateway** to handle dynamic routing and load balancing for client requests.
- Utilized **Spring Cloud OpenFeign** for declarative, type-safe synchronous communication between the Quiz and Question services, replacing brittle HTTP clients.

- **Fintech Wallet – Round-Up Investment Platform** [\[GITHUB\]](#)

Technologies: Java, Spring Boot, Spring Security, Spring Data JPA, PostgreSQL, Docker, JWT, REST API

- Built modular services for transaction management and user accounts, utilizing **REST APIs** documented with **Swagger/OpenAPI** to ensure seamless frontend integration.
- Implemented an asynchronous event system to trigger "round-up" investments from transaction change, improving system decoupling and scalability.
- Utilized **Spring Data JPA** and **PostgreSQL** with optimistic locking to manage concurrent financial transactions and prevent double spending.
- Enforced granular role-based access control (RBAC) to separate customer investment activities from administrative oversight capabilities.
- Deployed the backend with Docker Compose, standardizing development and deployment workflows across machines.

EDUCATION

Ain Shams University B.Sc. Computer Science

July 2026

CERTIFICATIONS

- [Web Secure Coding](#): Cyberus ASU (Sep 2023)
- [Introduction to Cybersecurity](#): Cisco (Apr 2022)
- [Java](#): Hacker Rank (Apr 2022)
- [UI/UX Design](#): Support ASU (Sep 2022)

Languages

- **Arabic** Native
- **English** Fluent