

Mohammad AbouElSherbini

Senior Backend Engineer | Java/Kotlin | Spring Boot | Microservices | DevOps | Cloud-Native Architectures

Possessing six years of experience in software engineering, augmented by participation in ICPC hackathons, I focus intently on problem-solving to design efficient solutions. Driven to design robust systems at scale while continuously sharpening my technical edge.

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Certifications & Technical Training

AWS Certified Cloud Practitioner Jan 2023 - Jan 2026

Issued by Amazon Web Services Training and Certification | [Credly](https://www.credly.com/certifications/awscertifiedcloudpractitioner)

IBM Internal Cloud Training (*CIO Cirrus, Watson, IBM Cloud, Deployment & Messaging Tools*) 2022 - 2024

Completed structured training under IBM US team

- IBM Cloud: architecture, deployment models, and cost management
- Cirrus: CI/CD pipelines, DevSecOps practices, and IBM container orchestration
- Messaging & Events: event-driven architecture using IBM's messaging layer

Work Experience

Avenga (formerly Musala Soft) Apr 2022 - Present

Senior Software Engineer

- Delivered backend solutions across multiple client projects, leveraging Spring Boot, Kafka, Docker, and Kubernetes in fast-paced agile environments
- Supported MAN Truck & Bus with a truck management platform handling **3,000+ trucks**, improving fleet utilization by **15%** and reducing maintenance scheduling time by **30%**
- Built a **device management solution** for **Nielsen-Kellerman**, optimizing sensor data flow and remote device control
- Led backend work on **internal migration projects** for Musala/Avenga, supporting legacy modernization, CI/CD improvements, and cross-team platform unification

IBM US Apr 2022 - Jan 2024

Senior Back-end Software Engineer (Remote)

- **Led a cross-functional team of 8 engineers** to design and develop **New Horizon**, a next-generation microservice-based procurement platform built from scratch to modernize and replace legacy tooling, **processing \$500M+ annual transactions**
- **Reduced operational and maintenance costs by 75%** through architectural improvements, centralized error handling and logging, and development of an advanced query and notification system
- Integrated seamlessly with key IBM systems including SP@I, IBM Cloud, and DB2, enabling streamlined global procurement operations across the organization and deployed on IBM's internal Cirrus Cloud
- Established and enforced comprehensive code review standards across the team, significantly improving codebase quality, maintainability, and performance while fostering a culture of collaboration and continuous learning
- Directed the implementation of solutions to centralize error handling and logging, an advanced query system, and a notification system, enhancing system reliability and user experience

Vodafone International Services (_VOIS) Jun 2021 - Jul 2022

Senior Back-end Software Engineer

- Ranked **1st** among **200+ engineers** in *VOIS problem-solving competition*, demonstrating top-tier algorithmic and analytical skills
- Pioneered the introduction of microservices architecture, improving system scalability and performance using Java, Spring, BDD, CICD/Azure dev-ops, and AWS (Cloud-Formation, load-balancer, etc...) in a SAFe agile environment
- Upgraded the whole codebase from spring boot 2.0.0 to 2.6.7 while refactoring and solving vulnerabilities
- Enhanced API performance through Locust-based benchmarking, achieving faster response times and higher availability

Information Technology Institute (ITI) Oct 2021 - Present

Senior Java Developer, Technical Instructor

- Designed and delivered comprehensive training programs in enterprise and Java web development, equipping trainees with industry-relevant skills and practices.
- Led classroom teams of **30+ trainees**, improving project delivery success rate from **45% to 95%** through structured communication and agile mentorship.
- Coached trainees on teamwork and project management, preparing them to excel in collaborative software development settings.
- Played a pivotal role in curriculum design, aligning training modules with industry standards and emerging technologies.

Skware Mar 2019 – Feb 2021

Software Engineer

- Developed and maintained backend services with **Java** and **Spring**, improving performance and scalability
- Built and deployed applications using **Docker** on **Linux-based environments**, ensuring consistency and reliability
- Gained hands-on experience with **Linux system administration**, shell scripting, and troubleshooting in production-like setups
- Contributed across multiple projects, strengthening expertise in enterprise-grade technologies and modern DevOps practices

Education

Diploma in Java web & Enterprise applications, Information Technology Institute (ITI) Oct 2020 - Jun 2021

- Received in-depth training in Java, Spring, Servlet & JSP, Testing, RESTful/SOAP services, Microservices, JPA/ORM, SQL/NoSQL

BSc. Eng in Computer Science & Systems Engineering, Mansoura University

- Bachelors of Engineering with Honours
- Graduation Project: 3D Game Engine with RHI using (C++, OpenGL, DirectX, and PhysX), Grade: Excellent (399/400)

Skills

Technical Leadership & Collaboration

- Led code reviews, mentored junior engineers, and managed cross-functional teams in agile environments
- Contributed to curriculum design and technical instruction as a Senior Java Instructor at ITI

Languages

Java (primary), Kotlin, C++, C#, Python, SQL, JavaScript, TypeScript, JSP, HTML/XML, Protobuf

Frameworks & Libraries

Spring (Boot, Web, Security, Data, Cloud, JPA, AOP, Integration), Hibernate, Mockito, JUnit, Angular, Node.js, Express.js, RMI

DevOps & Cloud

Docker, Kubernetes, Helm, Jenkins, Azure DevOps, Git, Nexus, ArgoCD, AWS (CloudFormation, Load Balancer, S3), IBM Cloud, Traefik, Nginx, IBM Watson, IBM CIO Cirrus

Messaging & Caching

Kafka, RabbitMQ, IBM Messaging and Events, Redis, Ehcache, WebSockets

Security & Auth

Keycloak, Authentik, OAuth2, JWT, Spring Security, Zuul, Eureka

Automation & RPA

Selenium, Sikuli, UIPath, Tampermonkey

Testing & Monitoring

Locust, WireMock, Swagger/OpenAPI, JUnit, Mockito, Prometheus/Grafana

Databases

PostgreSQL, MySQL, MongoDB, Firestore, DB2 (IBM)