

Mohamed Elshafeay

Senior Software Engineer

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Summary

Software engineer with strong systems design skills and a business-aware mindset, specializing in high-scale backend systems and cloud architecture. Led large-scale AWS modernization initiatives and distributed systems redesigns that significantly improved performance, scalability, reliability, and cost efficiency.

Work Experience

VimblyGroup

5/2023 - Present

➤ Senior Software Engineer (Cloud & Backend)

- Rebuilt the entire Inbox system, reducing response times by ~**95%** through architectural redesign and performance optimizations.
- Re-architected the OpenSearch ingestion pipeline from DMS+Kinesis to Debezium+MSK (Kafka), cutting indexing time for 1M records from 240 minutes to 6 minutes (**40x faster**), and eliminating the bottleneck where large runs previously blocked new indexing.
- Owned the end-to-end migration of a complex, high-scale product infrastructure from console-managed resources to AWS CDK (IaC), spanning compute, messaging, data, traffic ingress and delivery, security controls, and network foundations across staging and production.
- Established reusable CDK patterns, CI/CD pipelines, and guardrails that made infrastructure changes repeatable, code-reviewed, and resilient to drift.
- Reduced monthly cloud spend from \$30k to \$22.5k (25% reduction, ~\$90k annual savings) by decommissioning unused resources and optimizing infrastructure as part of the CDK rollout.
- Optimized database performance for tables containing over **1B records**, applying advanced techniques for efficient query execution and storage.
- Migrated the core Sorter service from PHP to Node.js, improving performance and maintainability of the system's most vital component.
- Integrated New Relic for comprehensive monitoring, enabling real-time performance tracking and faster incident resolution.

Trufla

12/2021 - 5/2023

➤ Senior Software Engineer

- Developed TruMarket, which is a multi-tenant, SaaS product that's being used by 3 of the top 10 insurance brokerages around the world, helping them manage millions of customers more efficiently.
- Interviewed candidates for junior & intern positions, and mentored some of those who got the job.
- Provided detailed code reviews and feedback to other team members.

➤ Software Engineer

- Created workflows using Camunda's BPMN Workflow Engine, composed that with zeebe workers and implemented service tasks that can be reused across other workflows.
- Built AWS lambda functions that integrate with third-parties, including:
 - Multinational insurance companies
 - The insurance bureau of Canada.
- Established a migration project, that was responsible for migrating the data from an old single-tenant system to TruMarket.
- Got promoted immediately after the probation period, with an overall "Exceeding The Expectations" evaluation.

CodeCube

10/2020 - 11/2021

➤ Backend Engineer

- Built and Maintained Coming which is a 3-apps food delivery project.
- Handled all the cloud related work.
- Led the backend team through a major revamp of Coming, making the system 2.2x faster and significantly improving security.
- Designed and implemented the initial infrastructure of Order-up, a food pick-up platform.

Udacity

4/2020 - 5/2023

➤ Full-Stack Session Lead

- Supported students in the Fullstack JS Nanodegree through technical guidance and interactive sessions.
- Designed engaging activities to enhance student engagement.

Skills

Programming Languages

- JavaScript
- TypeScript
- Python
- SQL

Technologies

- Node.js
- AWS
- CDK
- Docker
- GraphQL
- Kubernetes

General Concepts

- Scalability and performance tuning
- Distributed systems
- Event-driven architecture
- Data pipelines
- Infrastructure as Code (IaC)
- Database design
- Unit testing
- Microservices
- Serverless
- Multi-tenancy

Databases

- PostgreSQL
- MySQL
- MongoDB
- Redis
- DynamoDB

Education

9-Month Diploma

10/2019 - 6/2020

Information Technology Institute (ITI)
Track: Open Source Applications Development

B.Sc: Computer Engineering Degree

9/2014 - 7/2019

Mansoura University
Faculty of Engineering, Computers & Control Systems Department

Additional Info

Languages

- English (fluent)
- Arabic (native)
- Spanish (fair)

Hobbies

- Chess
- Video Games
- Table Tennis
- Padel

Others

- Open to relocate.
- Open to travel.
- References available upon request.