

Youssef Bushra Fouad

Backend-focused software engineer

[linkedin.com/in/youssefbushra](https://www.linkedin.com/in/youssefbushra) | github.com/YoussefBushra | youssefbushra.com

Summary

Backend-focused software engineer experienced in building and evolving production-grade, multi-tenant SaaS platforms and distributed systems. Experienced across microservices architecture, event-driven communication, enterprise integrations, data-intensive systems, and performance optimization. Strong in backend system design, scalability, observability, and full-stack product development.

Work Experience

Web Full Stack Developer

Aug 2024 - Present

Skil-Dev | Cairo, Egypt

- Contributed to the development of a production-grade, multi-tenant SaaS platform built around a large microservices architecture and multiple independently deployed web applications.
- Designed and developed backend services across complex business domains using NestJS, Node.js, TypeScript, PostgreSQL, and MongoDB, contributing to service boundaries, data ownership, APIs, and scalability decisions.
- Implemented event-driven communication and asynchronous workflows with RabbitMQ, designing message contracts and service interactions to support reliable processing across independently deployed services.
- Worked on multi-tenant architecture, including tenant-aware data access, authorization, and isolation across backend services.
- Designed and maintained integrations with Microsoft Dynamics 365 Finance, Odoo, and custom third-party financial systems, handling data synchronization and complex business workflows.
- Improved system performance and reliability through Redis caching, database optimization, and production observability using Grafana and OpenTelemetry for monitoring and distributed tracing.
- Developed and integrated React and Next.js applications with backend microservices, delivering end-to-end features across frontend and distributed backend systems.
- Contributed to code quality and deployment workflows through Jest testing, TypeORM migrations, Dockerized services, and CI/CD pipelines.

Full Stack Software Engineer

Jan 2024 – Aug 2024

Block Gemini | Dubai, UAE

- Designed RESTful APIs using NestJS, TypeORM, & PostgreSQL, improving performance of complex data retrieval operations.
- Utilized GraphQL to streamline data querying and improve client-side performance, with Redis as a caching layer.
- Integrated JWT authentication for secure user access and role-based authorization in the application across microservices, enhancing security while ensuring scalability and performance.
- Documented APIs using Swagger, improving developer experience and reducing integration time.
- Led the optimization of Elasticsearch geo-location search over a 10-million-record dataset, achieving a 600ms average query response time against a sub-1-second latency target.
- Contributed to frontend development tasks, including building features with Next.js 14 and styling with Tailwind CSS.
- Integrated NestJS APIs with React and Next.js frontends, ensuring seamless communication between the backend & UIs.
- Built and maintained a comprehensive logging system using Filebeat, Kibana, and Elasticsearch, enabling real-time log collection, monitoring, and visualization, while collaborating with the DevOps team to integrate these capabilities into backend systems for actionable insights into performance and system behavior.
- Collaborated with a diverse, multi-national team across Dubai, India, Romania and Egypt, enhancing communication and teamwork in a dynamic, fast-paced environment.

Education

The British University in Egypt (BUE) – London South Bank University (LSBU)

Oct 2018 – Jul 2022

Bachelor of Computer Science, Software Engineering major - Cumulative GPA: 4.00 (Distinction with Honors)

Certifications & Awards

Huawei Certified ICT Associate — Artificial Intelligence (HCIA-AI) — HUAWEI

Jun 2020 – Jul 2023

Huawei ICT Competition – Golden Medal — Cloud Computing National Finals

Feb 2021

Skills

Frontend: React, Next.js, JavaScript, TypeScript, Tailwind CSS

Backend: Node.js, Express.js, NestJS, TypeScript, TypeORM, Mongoose

Database: MS SQL Server, PostgreSQL, PL/SQL, MongoDB

Architecture: Microservices, Multi-Tenant SaaS, Event-Driven Architecture, API Gateway

Messaging & Caching: RabbitMQ, Redis

API Development: REST, GraphQL, Swagger

Search & Observability: Elasticsearch, OpenTelemetry, Grafana, Kibana, Logstash, Filebeat

Testing & DevOps: Jest, Docker, CI/CD, GitHub Actions

Languages: Arabic (Native), English (fluent - C1), German (A1).