Karrar Alzawaid

Senior Full-Stack Software Engineer

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Professional Summary

Senior full-stack software engineer with 8 years of experience designing, building, deploying, and operating production applications at multi-million-user scale. Advanced expertise across both front-end and back-end engineering, including complex **React** and **Next.js SSR** applications, reusable UI architecture, client-side state management, and high-throughput **Node.js** and **NestJS** microservices. Experienced in distributed systems, cloud architecture, data and caching strategies, performance optimization, observability, and incident response. Owns features end to end from product and API design through implementation, testing, deployment, and production operation across **AWS** and **Azure** environments.

Professional Experience

2024–Present **Senior Software Engineer**, *FanDuel*, Full-time

- Own critical full-stack systems supporting mission-critical FanDuel casino products, with end-to-end accountability for architecture, implementation, technical delivery, performance, and production reliability at multi-million-user scale.
- Design and build advanced front-end experiences using **React**, **Next.js SSR**, **TypeScript**, **Redux**, and **Zustand**, focusing on reusable component architecture, application performance, SEO, reliable API integration, and predictable client-side state management.
- Design, build, and optimize high-throughput services with **Node.js, Express, and NestJS** in a microservices architecture, focusing on latency, scalability, resilience, and efficient data-access and caching strategies.
- **AWS & Event-Driven Architecture:** Design and maintain cloud solutions using **EKS**, **Lambda**, **API Gateway**, **Application Load Balancers**, **EventBridge**, **SQS**, **SNS**, **S3**, **DynamoDB**, **EC2**, and **CloudFront**, supporting asynchronous processing and distributed workflows.
- **Data & Caching, PostgreSQL, DynamoDB & Redis:** Design and optimize data-access patterns and caching strategies for high-throughput, low-latency systems.
- Deliver production releases through **Buildkite** and support live systems using **Datadog** alerting, backend performance analysis and tuning, and incident response.
- Participate in the production on-call rotation, taking ownership of incident triage, mitigation, and resolution to restore service health and minimize customer impact.
- Diagnose and resolve complex production issues across authentication, service integrations, and backend performance, taking ownership from investigation through deployment and verification.
- Design backend services and evaluate architectural trade-offs across service boundaries, authentication, and integrations, performance, and maintainability.

2018–2024 **Full Stack Engineer**, *Digital DooD*, Full-time

- Delivered and operated production web applications across **React**, **Angular**, and **jQuery** front ends and **Node.js** and **Django** back ends.
- Designed backend services with **Express** and **NestJS** and implemented persistence layers across **PostgreSQL**, **MySQL**, and **MongoDB** using **TypeORM** and **Sequelize**.
- Containerized applications with **Docker** and managed deployment workflows for globally accessible production systems.
- Built cloud-hosted solutions using **Azure Container Apps**, **Blob Storage**, **Cosmos DB**, **Azure Cache for Redis**, and **Azure SQL Database**, as well as **AWS EC2** and **S3**.
- Improved application performance and usability while supporting the full delivery lifecycle from implementation to deployment and ongoing maintenance.

Selected client project: Roviniete Online - Vignette Application

- Independently developed and deployed a production application for purchasing and managing Romanian road vignettes, owning delivery across the frontend, backend, and third-party integrations.
- Built React/JavaScript customer and administration interfaces and Node.js services using NestJS/TypeScript and Express, with MongoDB/Mongoose, MySQL/TypeORM/Sequelize, and Redis-backed sessions.
- Integrated PayU and SmartPay payments, SCALA vignette issuance, and SmartBill invoicing, implementing event-driven payment handling through PayU callbacks, failure alerts, and invoice idempotency.
- Managed production deployment and infrastructure, including application hosting, database provisioning, and network access controls.
- Automated email and SMS expiry reminders and scheduled product updates; implemented logging for payment and issuance workflows.

Selected client project: EDUS - Educational Platform

- Developed assignment and test workflows end to end within a Python/Django educational platform, collaborating with another development team.
- Delivered end-to-end functionality using jQuery, Python/Django, and PostgreSQL, with responsibility for system design, frontend and backend implementation, and database integration.

Technical Skills

Languages & Front End	**JavaScript**, **TypeScript**, **React**, **Next.js** (SSR), **Angular**, **Redux**, **Zustand**, **micro-frontends**, `postMessage`
Back End	Backend architecture and performance, **Node.js**, **NestJS**, **Express**, **Koa**, **Fastify**, **Django**, **REST APIs**, **microservices**
Data & Messaging	**Redis**, **DynamoDB**, **PostgreSQL**, **MySQL**, **MongoDB**, **Cosmos DB**, **RabbitMQ**, **SQS**, **SNS**, **EventBridge**, dead-letter queues
Cloud	**AWS** (**EKS**, **Lambda**, **API Gateway**, **Application Load Balancers**, **EventBridge**, **SQS**, **SNS**, **S3**, **DynamoDB**, **EC2**, **CloudFront**); **Azure** (**Container Apps**, **Blob Storage**, **Cosmos DB**, **Azure Cache for Redis**, **Azure SQL Database**)
Delivery & Operations	**Buildkite**, **Docker**, **Docker Hub**, **Nginx**, **PM2**, **Cloudflare**, **Datadog**, **Sentry**, **Amplitude**
Mobile & Tooling	**React Native** (**Expo**), **Git**, **GitHub**, **Bitbucket**
AI & Development Tools	**Cursor**, **Claude**, **Codex**

Education

2016–2020 **Bachelor's Degree, Telecommunications and Information Technology**, *Technical University of Cluj-Napoca*, Cluj-Napoca, Romania
Faculty of Electronics, Telecommunications and Information Technology (ETTI)

2015–2016 **Romanian Language Certification**, *Babeș–Bolyai University*, Cluj-Napoca, Romania

Languages

Arabic Native / bilingual

English Professional working proficiency

Romanian Professional working proficiency