

Aws Abdulfattah

Senior Software Engineer • Payments Infrastructure & Distributed Systems

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Senior software engineer specialising in payments infrastructure and distributed systems.

At **Qi Card**, Iraq's largest fintech, I build inside **SuperQi**, a super-app on an Alipay-based stack. I built **Tasdid** — the pay-with-Qi service that third-party applications integrate to accept card and wallet payments — and **Tasdid+**, the consumer bill-payment mini-app on top of it: **1M+ users, ~500K transactions/month**. Card tokenization, idempotent payment endpoints, reconciliation, and flows designed against Central Bank of Iraq requirements.

Outside it: **NotifyX**, an open-source multi-channel notification platform (Node, BullMQ, Redis, PostgreSQL) benchmarked at **~150 msg/sec per worker** and now running in production at five companies; and **Cardyiq**, where I rebuilt a failing platform in production and hold **99.9% uptime** across 8 months.

TypeScript, Svelte, React, Node, PostgreSQL. Self-taught. Five years writing software, twelve building systems.

SKILLS

Languages

TypeScript JavaScript Python SQL

Frontend & Mobile

React Svelte / SvelteKit Next.js React Native Tailwind

Backend

Node.js Express Bun Prisma REST API design

Data

PostgreSQL MySQL Redis Query optimization / EXPLAIN Replication & failover

Distributed systems

BullMQ RabbitMQ Idempotency Retries, backoff & DLQ Rate limiting

Payments

Card tokenization Idempotent payment endpoints Reconciliation & settlement Webhooks Redirect/hosted flows

Infrastructure

Linux / VPS Docker GitHub Actions Dokploy DNS

AI

OpenAI API Gemini Prompt engineering Coding agents MCP

EXPERIENCE

Cardyiq — Founding Engineer & Technical Lead

September 2025 — Present · concurrent, equity
Baghdad, Iraq

- Rebuilt a failed agency-delivered platform (backend, dashboard, mobile) into a modular system — in production, without downtime. Root-caused a DNS/CDN misconfiguration that made the app **unusable without a VPN**; introduced the caching layer and CI/CD it never had.
- Integrated card and wallet payment providers (Wayl, Tasdid pay-by-Qi) behind a single abstraction, with idempotent endpoints and redirect/webview flows. Highest authorization success rate the provider had seen.
- 99.9% uptime over 8 months**. Recovered a data-loss incident with zero records lost by promoting a read replica; runs on read replicas plus off-site backups.
- Built the delivery pipeline: Docker, GitHub Actions, Dokploy. 30 mobile releases in 6 months.
- Serving 1,200 active subscribers and 150+ venues across 6 cities; ~\$53K processed in 7 months.
- Stack: Flutter, React, TypeScript, MySQL, Docker, GitHub Actions, Dokploy, Linode, Laravel (inherited).

Qi Card — Senior Software Engineer — Billing

November 2024 — Present
Baghdad, Iraq

- Billing team at Iraq's largest fintech. I build inside **SuperQi**, Qi Card's super-app, on an Alipay-based mini-app runtime. Promoted to Senior in March 2026.
- Built **Tasdid**, the pay-with-Qi payment service that third-party applications integrate to accept card and wallet payments, and **Tasdid+**, the consumer bill-payment mini-app on top of it: **1M+ users, ~500K transactions/month**.
- Payment engineering: card tokenization, idempotent payment endpoints, retries and webhook handling, reconciliation and settlement logic, redirect/hosted checkout flows.
- Designed a peer-to-peer invoicing flow to **Central Bank of Iraq** requirements and hardened it after internal security review: OTP transaction verification, payer identity removed at initiation. Implemented card-payment support to satisfy CBI's any-bill-any-card rule.
- Built **Jabi+**: merchant mini-app with filtering, sorting and pagination over large transaction datasets, plus Excel export for reconciliation. Built **e-Psule**: trilingual (Kurdish/Arabic/English) regional billing across multiple provider integrations with varying latency — solved with caching and progressive loading.
- Chose **Svelte** for bundle size and cold-start on a constrained mini-app runtime, low-end Android, slow networks. 5+ mini-apps shipped.
- Stack: TypeScript, Svelte/SvelteKit, Node.js, REST, tokenization, SuperQi/Alipay APIs.

Independent — Payments Integration Consultant

2025 — Present
Iraq · Remote

- Retained by 5 startups to integrate Iraq's payment rails — **Tasdid (pay-by-Qi)** and **Wayl** — into mobile and web products. Clients include Orivo, 3aljni and Skincare by Self.
- I built the Tasdid service itself, so integrations land first-time-right: correct redirect/webview handling, idempotency, webhook reconciliation, and checkout flows that don't lose users mid-payment.

Sifrtas — Software Engineer

September 2023 — July 2024
Remote

- One of four engineers on a weekly meal-ordering platform; took over both backend and frontend.
- Cut hosting costs 4× — **\$200/month to \$50/month** — through infrastructure and deployment changes.
- Built the deployment pipeline, and a Telegram bot serving as notification system and delivery tracker, removing manual coordination from daily operations.

HAWSR — Founder

July 2020 — August 2023
Baghdad, Iraq

- Turned my own master's thesis into a company. Built a 3D property-visualisation web platform (Three.js, React Three Fiber, React, Tailwind) to **~\$60K in revenue**.
- Automated the Autodesk Revit → web delivery pipeline with Dynamo and Python, removing manual model preparation.
- R&D: a pipeline converting 360° captures (Insta360 SDK, Python) into interactive **3D Gaussian Splatting** scenes for real-estate and photography use.
- Wound down. The market was too small, funding ran out, and splatting quality at that time did not scale. **1st Prize, The Station Foundation Incubator; Most Innovative Startup Founder, CS50x Baghdad**. Presented HAWSR on stage to an audience of 1,000+.

SELECTED WORK

NotifyX — Open-source Notification Infrastructure · github.com/awsdang/notifyx

2025 — Present · Open source

Multi-channel notification platform: FCM, APNS, HMS and Web Push behind one API, with plug-and-play SDKs for web, Flutter and React Native. Backend API, worker and scheduler in **Node.js, BullMQ, Redis and PostgreSQL (Prisma)** — asynchronous job processing, scheduling, retries and queue orchestration. Load-tested with k6 at **~150 messages/sec per worker**. React admin dashboard for delivery operations.

Tasdid & Tasdid+ — National Bill Payment (Qi Card)

2024 — Present

Tasdid is the pay-with-Qi payment service: third-party applications integrate it to accept Qi Card payments without handling card data. **Tasdid+** is the consumer mini-app on top — pay government and private bills across many providers through one interface. **1M+ users, ~500K transactions/month**. SuperQi (Alipay-based) APIs for authentication, bill enquiry, invoice display, wallet and card-tokenized payments. Svelte architecture separating UI from state; caching and progressive loading to absorb providers with very different response times. Designed against Central Bank of Iraq requirements.

Jabi+ — Merchant Transactions Mini-app (Qi Card)

2025 — Present

A merchant mini-app for the businesses that **don't have a laptop** — 1-10 people running their finances from a phone. Incoming transactions, statements, payroll to employees, payments to business services.

Filtering, sorting and pagination over large transaction datasets, plus Excel export for reconciliation and reporting. Mobile-first, built for operational use by real business accounts.

EDUCATION

Turing College —Certificate, AI Engineering

October 2025 — 2026

Completed. Capstone: Maaahr, an AI interview-practice platform, later extended to live voice.

University of Technology —B.Sc., Architectural Engineering

October 2012 — July 2017

University of Ljubljana —Erasmus Exchange, MSc Information Management (coursework & thesis)

October 2020 — October 2021

Coursework and thesis completed remotely; degree not conferred (visa denied during COVID-19). The thesis was commercialized as **HAWSR**.

AWARDS, CERTIFICATIONS, COMMUNITY & LANGUAGES

1st Prize — Incubator Program

The Station Foundation · 2022

Most Innovative Startup Founder in Baghdad

CS50x Baghdad · 2022

AI Engineering

Turing College · 2026

Machine Learning for Inverse Graphics & AI

MIT · March 2024

Python — AI & Machine Learning

10K Arab AI Developers Initiative · January 2024

Three.js Journey

Bruno Simon · July 2022

Arabic

Native

English

Professional — IELTS 7.5–8

Dutch

Beginner