

Karim Ahmed

// full-stack developer — systems architecture & backend engineering

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// SUMMARY

Full-stack developer who designs and builds the backend systems and infrastructure behind production SaaS platforms, not just interfaces. I design **relational schemas, API contracts, and service boundaries from scratch**, build on **serverless and edge infrastructure** (Cloudflare Workers, D1, KV, R2), and handle the operational layer most developers avoid: billing state machines, dunning logic, transactional email pipelines, background jobs, and auth. I have taken systems from a blank repository to **production platforms running at 20,000+ users**, writing every layer myself: database design, backend services, frontend, deployment pipeline, and monitoring. I work in Python (Django, FastAPI), Node.js, and TypeScript, and I think in terms of data models and failure modes before I think in terms of UI.

// EXPERIENCE

Freelance Full-Stack Developer & Technical Founder — Independent, remote 2024 — Present

- Architected **SceneYard** from scratch: schema design in **Cloudflare D1**, an edge-deployed **Next.js** app on **Cloudflare Workers via OpenNext**, and **R2** as the object store for large binary scene files, serving **20,000+ signups** across separated staging/production environments.
- Designed and implemented a **subscription billing state machine** on Paddle: plan changes, proration, failed-payment recovery through Retain, and webhook-driven state reconciliation between Paddle and D1.
- Built an event-driven notification layer: a custom **Telegram bot** subscribed to internal business events (signup, payment, churn), and a background job system on **Cloudflare Cron Triggers** reading/writing D1 to drive multi-step lifecycle email sequences through Resend.
- Configured production email infrastructure end to end: domain authentication (**DMARC, SPF, DKIM**), deliverability monitoring, and Google OAuth for authentication.
- Worked with the full team on **Castform**, an AI voice agent SaaS platform, as the **backend developer**. Managed the backend built with **Django, PostgreSQL ORM, Celery**, and integrations with **VAPI, Twilio, Eleven Labs API**, and **Gemini API**.
- Designed the backend API, data models, and server infrastructure for **My Story**, a mobile app live on Google Play.
- Took on full technical ownership of client platforms end to end: architecture, backend, frontend, deployment, and infrastructure, for clients across Egypt, Iraq, and the wider Middle East.

Stack: Next.js · Django · FastAPI · Cloudflare Workers/D1/KV/R2 · PostgreSQL · Paddle · Stripe · Resend

Full-Stack Developer — Senu Studio 2022 — 2024

- Designed and built **25+ custom CMS platforms** from the database layer up: content models, admin APIs, and role-based access, so non-technical clients could manage their own sites without touching code.
- Engineered feature-specific backend systems per client: booking engines with availability logic, lead-routing pipelines, and multi-user admin dashboards with permissioned access.
- Built senu.studio's own backend and content architecture, scaling it to **2M+ visits** without a rewrite.
- Owned each engagement end to end: schema design, backend, frontend, deployment, and infrastructure.

Stack: Next.js · Django · Tailwind · PostgreSQL · Custom CMS

// TECHNICAL SKILLS

Backend	Python, Django, FastAPI, Node.js, Celery, background job systems
Frontend	Next.js, React, TypeScript, Tailwind CSS, Flutter
Databases	PostgreSQL, SQL, Redis, Cloudflare D1, schema & query design
Cloud & Infrastructure	Cloudflare Workers, OpenNext, D1/KV/R2, Cron Triggers, AWS S3, DNS/DMARC/SPF/DKIM
APIs & Auth	REST API design, webhooks, OAuth 2.0, service-to-service auth
Payments & Messaging	Paddle + Retain, Stripe, Paymob, Resend, Zoho Mail, Telegram Bot API
Engineering Practice	System design, OOP, design patterns, algorithms, state machines, event-driven architecture
Languages	Arabic (Native), English (Professional)

// SELECTED PROJECTS

SceneYard sceneyard.com planned & built end to end

Subscription SaaS for motion designers, designed and built solo from architecture to production. The app runs on **Next.js** deployed to **Cloudflare Workers** via **OpenNext**, with **D1** as the relational store for users, subscriptions, and scene metadata, and **R2** for large binary scene-file storage, chosen specifically to keep storage costs and cold-start latency low at the edge.

Billing runs on **Paddle** with a webhook-driven reconciliation layer that keeps subscription state in **D1** in sync with Paddle's source of truth, and Retain handling automated dunning on failed payments. A background job system built on **Cloudflare Cron Triggers** reads and writes **D1** to drive multi-step lifecycle email sequences through Resend, and a custom **Telegram bot** gives real-time visibility into signups, payments, and churn without needing to check a dashboard. Currently at **20,000+ signups**.

Castform castform.io backend developer

AI voice agent SaaS platform. Worked with the full team in a backend-developer role, managing the backend built with **Django**, **PostgreSQL ORM**, and **Celery** for background task processing. Integrated voice and AI providers including **VAPI**, **Twilio**, **Eleven Labs API**, and **Gemini API** to power real-time voice pipelines, speech-to-text, LLM inference, and synthesized responses.

Owned backend architecture and implementation: agent configuration, call sessions, usage tracking per customer, and a data model supporting multiple concurrent voice agents per account, while the wider team handled other parts of the product.

EMAAL Business Space emaalbs.com full-stack developer

Corporate platform for a leading Iraqi business group, built as a full content and subscription system rather than a static site. Designed a **custom CMS and content-management layer** from the database up, giving the client's own non-technical team a professional admin dashboard to manage a **blog**, publish articles, and run recurring events like the Iraq Business Summit without ever touching code.

The dashboard includes role-based access for different staff members, media and asset management, and structured content types for events, news, and business listings. Built an **automated email layer** on top of it, triggering notifications and updates to subscribers whenever new content or events go live, and a **subscription flow** letting users register for services and event updates directly through the platform. Every part of it, from the schema to the admin UI to the public site, was designed and built by me end to end.

// EDUCATION

B.Sc. Computer & Information Science
Mansoura University
2020 – 2024 • Grade 84%

Secondary School
Egypt
2019 – 2020 • Grade 93%

// HIGHLIGHTS

- **Top Rated** on Upwork, 100% Job Success
- 4.7 rating, 11 jobs completed
- **Dell Hack Trick**, ranked 5th nationally
- **ICPC / ECPC**, 2nd place, university round