

Jamal Aldeen

Software Engineer — Backend

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Cairo, Egypt · Open to relocation and remote work

Summary

Backend software engineer and acting team lead at ABM Egypt. Builds and runs the systems behind the company's API, including a Go router that handles all live traffic, a multi-tenant payment gateway and the cloud servers underneath them. Plans the team's work, reviews code and still writes production code every day, and works on the frontend when a product needs it.

Experience

ABM Egypt — Cairo, Egypt · Full-Time

Jul 2024 – Present

Software Engineer · Acting Team Lead

Nov 2025 – Present

- **Edge router:** designed and built the Go service that sends each API key to the old or the new platform; it has handled all live production API traffic since Sep 2026 and can move a customer back instantly
- **Task API platform:** designed and wrote most of the next-generation captcha-solving platform, built for 10–50M requests/day, with atomic Redis Lua admission, 52 RabbitMQ queues and signed callbacks, running on its own 9-server production environment
- **Autoscaling:** wrote the engine that adds and removes worker servers for 14 task types, picks the cheapest server mix and stays inside spend and server-count limits
- **Infrastructure:** automated Hetzner Cloud provisioning in PHP and Bash (servers, 5 private networks, firewalls, bastion SSH), dry-run by default, plus a crash-safe server-acquisition controller on systemd timers
- **Operations:** set up Caddy TLS and load balancing over 4 API hosts, health-gated rolling deploys, 47 Prometheus alert rules, generated Grafana dashboards and a GitHub Actions pipeline that builds 8 worker images in parallel
- **Security:** RBAC (5 roles, 24 capabilities), hashed API keys, HMAC-signed calls with single-use nonces, layered rate limits and audit logs
- **Team lead:** split requirements into tasks, set priorities, review code, make architecture decisions and direct AI coding agents (Claude Code, Copilot) through written specs

Technologies: PHP 8.3, Laravel 12 (Octane, FrankenPHP), Filament, Livewire, Go, Lua, MySQL 8.4, Redis 7, RabbitMQ, Hetzner Cloud API, Bash, Docker, GHCR, Caddy, systemd, Prometheus, Alertmanager, Grafana

Software Engineer

Feb 2025 – Oct 2025

- **Payment gateway:** started the codebase, led 2 architecture rewrites and ran the releases of a multi-tenant gateway now in production, with adapters for Stripe, PayPal, BTCPay Server, PayPro Global and Tap Payments
- **Payment safety:** made every payment count once with per-provider webhook signature checks, deduplication by provider event ID, row locks on balances and signed outbound webhooks with retries
- **Subscriptions:** built recurring billing on Stripe, PayPal and PayPro with trials, renewals and plan changes, plus a reconciler that is read-only by default
- **SaaS billing move:** owned the payment integration of a live captcha SaaS and led its cutover from legacy PayPal and PayPro billing without dropping renewals, with production data fixes gated by dry runs and checksums
- **Go API:** wrote most of a Go (Gin) rewrite of a legacy PHP endpoint with a 3-level API-key cache and backpressure, benchmarked at ~987 requests/s ahead of the external solver step
- **Legacy rebuilds:** founded 2 Laravel rebuilds of legacy PHP platforms, with a bridge to the old system, parity tests, multi-domain tenancy and data import and sync tools

Technologies: PHP, Laravel, Sanctum, Filament, Livewire, MySQL, Redis, Go (Gin), RabbitMQ, Docker (Swarm), Nginx, Prometheus, Grafana, Supervisor, OpenAPI, Stripe, PayPal, BTCPay Server, PayPro Global, Tap Payments

Full-Stack Developer

Jul 2024 – Jan 2025

- **Payment client package:** wrote a reusable Laravel package for the gateway with signed requests, 13 webhook event types and an idempotent, row-locked balance-deduct API

- **Single sign-on:** added JWT SSO to an external helpdesk, constant-time API-key checks and automatic bcrypt upgrade of legacy passwords
 - **Rewards platform and bridge API:** built a points platform with admin and self-service panels, expiry and safe redemption, and an API-only service over a legacy database with per-client auth and audit logs
- Technologies:* PHP, Laravel, Filament, MySQL, JWT, PHPUnit (Testbench), Blade, Tailwind CSS, Alpine.js, Bootstrap

LogicSys — Port Said, Egypt · Part-Time, Remote

May 2024 – Aug 2026

Software Engineer

- **Live ERP:** found and fixed deadlocks and race conditions in the WooCommerce order sync with row locks, atomic counters, retries with backoff, a database-stress circuit breaker and batched sync
- **Water-distribution platform:** founding engineer on a 5-person team; built the data model, 4 role-based portals, the order workflow with an audit trail, and Arabic RTL invoices and receipts
- **SQL Server apps:** built a mobile POS REST API and an exam-results app on stored procedures, with JWT auth, feature tests and a deploy script

Technologies: PHP, Laravel 5.8–12, Filament, MySQL, SQL Server (T-SQL), WooCommerce, mPDF, Dompdf, PHPUnit

Freelance Software Engineer — Selected Projects — Remote · Project-Based

Jan 2024 – Present

- **Real-estate CRM:** built Paddle subscription billing in NestJS and MongoDB, with verified webhooks on a Bull retry queue and nightly MRR, ARR and churn metrics
- **AI calling SaaS:** built the admin back-office API, a rate-limited test-call endpoint, the first PayPal top-up flow and real-time admin notifications through a Node.js Socket.IO relay to an Angular 19 app

Technologies: TypeScript, NestJS, MongoDB (Mongoose), Bull, Laravel 11, Node.js, Socket.IO, Redis, Angular 19

Skills

Backend: Laravel 8–13 (Octane, FrankenPHP, Horizon, Sanctum, Fortify), Filament 3–5, Livewire, Go (Gin, net/http), NestJS, Node.js (Express), Socket.IO, REST, OpenAPI (Swagger), webhooks, WebSockets, JWT

Programming Languages: PHP 8.x, Go, SQL, T-SQL, Bash, Lua (Redis), TypeScript, JavaScript, Python (automation)

Data & Messaging: MySQL 8, SQL Server (stored procedures), MongoDB (Mongoose), SQLite, Redis (Streams, pub/sub, locks), RabbitMQ (topic exchanges, DLX, retries, AMQPS), Bull, Laravel queues, scheduler, Supervisor

Cloud & Networking: Hetzner Cloud API (servers, private networks, firewalls, placement groups, cloud-init), Linux, systemd (services, timers), Caddy (TLS, load balancing, health checks), Nginx, certbot DNS-01, bastion SSH

DevOps & Delivery: Docker (Compose, Swarm), GHCR, GitHub Actions (matrix builds), Cloudflare (Workers, Pages, Durable Objects, Access), Ploi, rolling deployments, restore-verified backups

Observability: Prometheus (alert rules), Alertmanager, Grafana (dashboards as code), exporters, health and readiness probes, structured logging, W3C tracing

Security: RBAC, HMAC request signing, webhook verification, nonces, replay windows, API-key hashing, JWT SSO, rate limiting, CSP and security headers, SSRF guards, secret encryption, log redaction, audit logging, gitleaks

Payments: Stripe, PayPal, BTCPay Server, PayPro Global, Tap Payments, Paddle; subscriptions, dunning, reconciliation, idempotency, ledgers

Frontend: Angular 19, React, Blade, Alpine.js, Tailwind CSS, Bootstrap, Vite; Arabic RTL PDF (mPDF, Dompdf)

Testing & Quality: PHPUnit, Pest, Go testing, Playwright, Vitest, Jasmine, Karma, PHPStan (Larastan), Pint, load testing (custom Go generator, h2load, hey), contract and parity tests

AI-Assisted Engineering: Claude Code, GitHub Copilot, Laravel Boost (MCP); directing and reviewing coding agents

Education

B.Sc. Computer Science

Jul 2024

Modern Academy, Maadi, Cairo · Graduation project: self-driving simulation on CARLA Simulator, grade A+

Full-Stack Web Development Intern (PHP)

Nov 2023 – May 2024

Information Technology Institute (ITI), Port Said

Languages

Arabic (Native) · English (Intermediate)