

Muhammad El Sayed

Backend Software Engineer

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Summary

Backend software engineer focused on production APIs, database performance, and data-intensive systems using Python, Node.js, PostgreSQL, and AWS. Shipped a live multi-tenant SaaS.

Experience

Freelance Backend Software Engineer Ur-Nammu Publishing Portal — Contract via Upwork	Apr 2026 - Present Remote
- Led and production-deployed an Arabic-first, multi-tenant publishing SaaS using Django/DRF and PostgreSQL, implementing tenant isolation, approval workflows, and administrative operations. - Integrated Stripe Checkout and Billing Portal with webhook-driven subscription synchronization, access-state enforcement, and plan-based title quotas. - Designed direct-to-Cloudflare R2 uploads using presigned URLs and deployed ARM64 containers on AWS ECS/Fargate with RDS PostgreSQL, Valkey, ALB, SES, and SSM-managed configuration.	
Database Software Engineer Egyptian Armed Forces	May 2024 - Apr 2026 Alexandria, Egypt
Developed and optimized PL/SQL procedures and SQL queries processing 100K+ operational records under strict data-consistency and reliability requirements.	
Software Engineer Sindion Technology Ltd	Sep 2023 - May 2024 Alexandria, Egypt
- Cut API response time 65% and eliminated 93% of redundant production queries through Django ORM optimization and PostgreSQL composite indexes. - Built PostGIS-to-GeoJSON APIs powering real-time property-boundary visualization in Google Maps. - Documented 20+ API endpoints with request/response schemas and auth flows using OpenAPI/Swagger, Sphinx, and Read the Docs.	
Software Engineer Intern Sindion Technology Ltd	Jul 2022 - Oct 2022 Alexandria, Egypt
Resolved an N+1 bottleneck in Django REST Framework views, cutting redundant queries 70%.	

Projects

zero_ — High-Throughput Log Ingestion Node.js, C++, ClickHouse, Redis, Docker, gRPC <i>Personal</i>	GitHub <i>Oct 2025 - Feb 2026</i>
- Scaled ingestion throughput 2.8× from 6,071 to 17,255 req/s using Node.js cluster mode, worker threads, and Redis Streams to decouple request ingestion from asynchronous processing. - Rewrote the consumer in C++, lifting throughput 2.7x while cutting peak CPU 75% and memory 80%. - Instrumented the pipeline end-to-end with OpenTelemetry; deployed via Docker with archival to AWS S3. - Built a polyglot API layer (HTTP/1.1, HTTP/2, gRPC + Protocol Buffers) behind NGINX, cutting payload size 54% and raising parse throughput 9.4x.	

Skills

Languages: Python, JavaScript/Node.js, C++, SQL, PL/SQL
Backend & Data: Django/DRF, PostgreSQL, PostGIS, Redis/Valkey, ClickHouse, REST, gRPC
Cloud & Platform: AWS (ECS/Fargate, RDS, S3, SES), Docker, NGINX, GitLab CI, OpenTelemetry, Linux
Integrations & Patterns: Stripe, webhooks, presigned uploads, multi-tenant SaaS.

Education

Alexandria University - Faculty of Engineering <i>B.Sc. in Computer and Communication Engineering</i>	Alexandria, Egypt <i>Sep 2018 - Jul 2023</i>
GPA: 3.38	