Omar Abdulaziz

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EXPERIENCE

Software Engineer *Oct 2021 – Present*
Codescalers *Cairo, Egypt*

- **Kubernetes**: Built custom CRDs to extend cluster functionality for scalable workloads.
- **API Development**: Delivered REST, GraphQL, and RPC APIs with strong spec compliance.
- **Database**: Optimized PostgreSQL schemas and queries, cutting response times from 30s to 3s (10x).
- **Concurrency**: Designed distributed indexers for 3k+ nodes using Go generics and concurrency.
- **Pub/Sub Systems**: Built asynchronous pipelines with Redis streams for reliable event-driven processing.
- **Frontend Integration**: Supported Svelte→Vue migration, integrating multiple APIs for a unified dashboard.
- **DevOps & Docker**: Published 20+ Docker images for DApps, boosting deployment and developer adoption.
- **Systems Programming**: Developed low-level Linux services and extended a fetch-on-read filesystem with S3.
- **Security & Networking**: Secured servers with NFTables and implemented OAuth + signature-based auth.
- **Monitoring**: Built health-checking and caching services, improving reliability and observability.
- **Tooling & Automation**: Created an OpenRPC codegen tool, reducing boilerplate by 40%.
- **Collaboration**: Joined design discussions, PR reviews, and cross-team projects to ensure scalable solutions.
- **Testing**: Maintained unit/integration test suites for stable, well-covered services.

Intern Software Engineer *Aug 2021 – Oct*
Codescalers *Cairo, Egypt*

- **Automation Tools**: Implemented client tools for Jumpscale to streamline automation.
- **API/SPA Development**: Managed testing, containerization, CI/CD—reduced deployment time.

EDUCATION

Bachelor of Electronics and Communication Engineering *2016 – 2021*
Nile Academy *Mansoura, Egypt*

PROJECTS

BusyNux *Bash, Linux, Busybox*
Minimal Linux-from-scratch distribution

Gocker *Go, Linux, Docker, runc*
Lightweight Docker clone using Linux primitives, namespace, cgroups

ThirdEye *Python, TensorFlow, ML/AI*
AI-powered device for visually impaired people, providing object recognition with audio feedback

TECHNICAL SKILLS

Programming Languages: Go, TypeScript, Python, SQL, Bash

Databases: PostgreSQL, Redis, MongoDB

Backend & APIs: REST, GraphQL, Pub/Sub, gRPC

Frontend: Vue.js, Svelte

Cloud & DevOps: Linux, Docker, Kubernetes,