Youssef Farag

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SUMMARY

Backend-focused full-stack developer with a strong foundation in scalable API design, database architecture, and modern web frameworks. Built production-grade systems using Python, Node.js, Docker, and React. Interested in solving real-world problems using clean architecture, microservices, and cloud-native tooling.

EDUCATION

Alexandria University — Alexandria, Egypt
*Bachelor of Science in Computing and Data Science, **CGPA: 3.8 / 4.0*** — *Sep 2021 – Jun 2025*

EXPERIENCE

Full-Stack Software Engineer — Aug 2025 – Present
CyberGuardX Integrated Solutions LLC — *Alexandria, Egypt*
- Led development of a **tourism booking platform** as the main project, including booking workflows, secure payments, and admin dashboards.
- Developed backend services in Node.js/Express with MongoDB, achieving response times under **300ms** on average.
- Ensured booking reliability by validating multi-step transactions, reducing booking errors by **20%**.
- Built React + TailwindCSS frontend to streamline customer and admin operations.
- Monitored production systems, optimized queries, and deployed fixes with minimal downtime.

Full-Stack Developer — Jan 2025 – Apr 2025
Nedialo Outsourcing and Offshoring Consulting — *Cairo, Egypt* ↗ *Live Site*
- Maintained and enhanced a real estate CRM using Django, MySQL, and Vanilla JavaScript.
- Managed VPS deployments with firewall rules, backups, and monitoring, ensuring **zero downtime** for agents.
- Optimized SQL queries and caching to handle **thousands of requests/day** with fast response times.
- Implemented **server-side rendering (SSR)** for property listings, improving page load speed by about **35%**.
- Built analytics dashboard with SQL-based insights for business reporting.
- Integrated Discord webhooks for error logging and server status alerts.

Web Development Intern — Summer 2024
Information Technology Institute (ITI) — *Alexandria, Egypt*
- Completed intensive hands-on training in modern web development technologies including Node.js, React, and SQL.
- Learned software engineering fundamentals such as clean architecture, Git workflows, and test-driven development.
- Collaborated with peers to design small-scale applications, practicing agile teamwork and feature delivery.

PROJECTS

AI-Powered Q&A Platform (RAG System)
FastAPI, Python, LangChain, OpenAI, React, Docker
- Built Retrieval-Augmented Generation (RAG) platform enabling students to upload documents and query AI with context-aware answers.
- Created FastAPI microservices for document upload, embedding, and retrieval, processing **100+ queries/day**.
- Integrated LangChain with OpenAI API and vector DB for low-latency semantic search.
- Containerized services with Docker for consistent local and cloud deployment.

Collaborative Task Manager Web App
Node.js, TypeScript, React, PostgreSQL, Prisma, JWT, Docker
- Developed task manager supporting team collaboration, role-based access, and real-time updates.
- Designed relational schema with Prisma ORM and secured REST APIs with JWT authentication.
- Implemented optimistic UI updates and auth flows in React + Redux for a smooth UX.
- Containerized backend and frontend for deployment, cutting setup time by **70%**.

Travel Logging and Mapping Platform ⟲

React, Leaflet, Node.js
- Created platform for logging travel experiences and visualizing user journeys on dynamic maps.
- Used Leaflet to render interactive maps with geo-coordinates for user-submitted places.
- Built Node.js backend to handle CRUD operations for **200+ user-generated entries**.

Sales Analytics Dashboard ⟲

Next.js, TypeScript, Tailwind CSS, Redux Toolkit, Recharts
- Built responsive sales dashboard with secure login and Redux-based state management.
- Implemented sortable, filterable, and paginated DataTable with async operations on datasets of **10,000+ rows**.
- Visualized revenue trends with Recharts bar charts and interactive filtering.
- Optimized performance with memoized hooks and responsive sidebar navigation.

TECHNICAL SKILLS

Languages: Python, TypeScript, JavaScript, SQL, PHP, Java, C++
Frameworks
Libraries: Django, FastAPI, Node.js, Express, React, Next.js, Laravel, Redux Toolkit, Tailwind CSS, Recharts
Databases: PostgreSQL, MySQL, MongoDB
Dev Tools: Docker, Git, Postman, Nginx, GitHub Actions, VS Code, Figma
Architecture
Practices: REST APIs, Microservices, RAG, JWT Auth, OAuth2, Clean Architecture, CI/CD, MVC, Monorepos, SOLID, OOP, Design Patterns (Factory, Singleton, Strategy), Test-Driven Development (TDD), Agile/Scrum
Testing: Unit testing, Integration testing, Jest, Supertest, Pytest