Youssef Farag

Full-Stack Software Engineer — Front-End & Back-End Developer

01206784949 | youssefarag19@gmail.com | linkedin.com/in/youssef-farag | github.com/youssefarag2 | youssefarag2.github.io

SUMMARY

Full-Stack Software Engineer with expertise in designing and developing **client-side and server-side architecture** for scalable applications. Proficient in **JavaScript, TypeScript, React, Node.js, and Python**, with hands-on experience in **REST APIs, GraphQL, microservices**, and **cloud deployment**. Skilled in **Docker, Kubernetes, CI/CD pipelines**, and **Agile methodologies**. Strong background in **database design (SQL & NoSQL)**, **API integrations**, and **data visualization**. Proven ability to translate **business requirements into technical solutions** and deliver production-ready applications.

EDUCATION

Alexandria University   Alexandria, Egypt
Bachelor of Computers and Data Science, Specialization in Computing and Data Sciences   *Sep 2021 – Jun 2025*
   – **CGPA: 3.80 / 4.00** – Equivalent Grade: **Excellent with Honours Degree**.

EXPERIENCE

Software Engineer Intern   Aug 2025 – Oct 2025
CyberGuardX Integrated Solutions LLC   *Alexandria, Egypt*
   – Designed and developed **client-side and server-side architecture** for a tourism booking platform using **React, TypeScript, Node.js, and Express**.
   – Built scalable **REST APIs and microservices** with **MongoDB**, achieving response times under **300ms**.
   – Developed **front-end components** using **React, JavaScript, HTML, CSS**, implementing responsive design and optimistic UI updates.
   – Implemented **multi-step transactional validation** and integrated **third-party payment APIs**.
   – Deployed applications using **Docker containers** on cloud platforms, achieving **99.9% uptime** through monitoring and debugging.
   – Collaborated with stakeholders using **Agile/Scrum methodologies** to gather requirements and deliver iterative solutions.

Full-Stack Developer   Jan 2025 – Apr 2025
Nedialo Outsourcing and Offshoring Consulting   *Cairo, Egypt*
   – Developed and maintained **front-end and back-end components** for a real estate outsourcing CRM platform using **Django, JavaScript, HTML, CSS**, and **MySQL**.
   – Optimized **SQL queries** and database architecture, improving application load speeds by **35%**.
   – Built analytics dashboards with **data visualization** for real-time metrics and business insights for 100+ active users.
   – Managed cloud deployments, implemented **CI/CD practices**, and maintained **zero downtime** through proactive monitoring.
   – Integrated **third-party APIs** like **Discord Server API**, and webhooks for real-time error logging and system health monitoring.
   – Diagnosed and resolved **critical system bugs**, including fixing **cross-platform audio playback issues** where voice notes sent from IOS device , ensuring full compatibility and stability.

Web Development Trainee   Summer 2024
Information Technology Institute (ITI)   *Alexandria, Egypt*
   – Completed hands-on training in **full-stack web development** using **HTML, CSS, JavaScript, PHP**, and **MySQL**.
   – Built a complete **full-stack web application** deployed on an **Apache server**, integrating both front-end and back-end components.
   – Gained practical experience in **database design**, **server-side scripting**, and **client-server communication**.
   – Collaborated in a team environment to design, implement, and present a functional web solution following best development practices.

PROJECTS

AI-Powered Q&A Platform (RAG System)

FastAPI, Python, LangChain, OpenAI, React, Docker

- Designed and developed **full-stack application** with **React front-end** and **Python/FastAPI back-end** for document querying.
- Built **RESTful services** for embedding, retrieval, and document processing.
- Integrated **third-party APIs (OpenAI)** with vector database for contextual AI-powered responses.
- Containerized services with **Docker** and implemented deployment pipelines for cloud environments.
- Translated requirements into technical architecture for semantic search functionality.

Collaborative Task Manager Web App

Node.js, TypeScript, React, PostgreSQL, Prisma, JWT, Docker

- Developed **full-stack application** using **TypeScript, React, Node.js, and Express** with **PostgreSQL** database.
- Designed and implemented secure **RESTful APIs** with authentication, authorization, and comprehensive error handling.
- Built **responsive front-end components** with **Redux** state management and optimistic UI updates.
- Containerized application using **Docker Compose** and implemented **CI/CD practices**.
- Conducted testing and debugging to ensure clean, functional, and maintainable code.

Travel Logging and Mapping Platform

React, JavaScript, Node.js, Express, MongoDB

- Developed **full-stack geospatial application** with **React front-end** and **Node.js/Express back-end**.
- Built **data visualization** features using interactive maps and **JavaScript** libraries for user engagement.
- Implemented **RESTful APIs** with **MongoDB (NoSQL)** for CRUD operations.
- Integrated the **Leaflet Maps API** to display user locations, travel routes, and visited destinations interactively on the map.

Sales Analytics Dashboard

Next.js, TypeScript, React, Tailwind CSS, Redux Toolkit

- Built responsive **front-end application** using **React, TypeScript, HTML, CSS (Tailwind)**, and **Next.js framework**.
- Implemented **data visualization** with interactive charts, filterable tables, and pagination.
- Developed **reusable components** and optimized performance using memoization and lazy loading techniques.
- Integrated authentication and state management using **Redux Toolkit** for scalable architecture.

TECHNICAL SKILLS

Front-End Technologies: HTML, CSS, JavaScript, TypeScript, React, Next.js, Redux, Tailwind CSS, Bootstrap, Responsive Design

Back-End Technologies: Node.js, Express, GraphQL, REST APIs, FastAPI, Django, Python, Java, C#, Rust

Databases: SQL (MySQL, PostgreSQL), NoSQL (MongoDB)

Cloud & DevOps: Google Cloud Platform (GCP), Docker, Kubernetes, CI/CD, GitHub, GitHub Actions, AWS, Nginx

Architecture & Design: Client-Side & Server-Side Architecture, Microservices, Full-Stack Development, API Integration, Clean Architecture, OAuth2, JWT Authentication

Testing & Debugging: Jest, Supertest, Pytest, Unit Testing, Integration Testing, Test-Driven Development (TDD), Code Debugging

Data Visualization: Recharts, D3.js, Interactive Dashboards, Business Intelligence

Development Tools: Git, GitHub, Postman, VS Code, Figma

Methodologies & Soft Skills: Agile, Scrum, Problem-Solving, Analytical Thinking, Stakeholder Communication, Team Collaboration, Requirement Gathering, Adaptability