Ali Haggag *Software Engineer | MERN Stack*

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📍 Qena, Egypt   🔗 ali-haggag7

🔗 Ali-Haggag7   🔗 Portfolio

SUMMARY

Innovative Full-Stack Software Engineer (MERN) specializing in architecting scalable, real-time, and offline-first web applications. Adept at engineering complex systems using WebRTC for zero-latency streaming and Socket.io for live communication. Passionate about integrating AI capabilities (Google Gemini) and optimizing frontend performance through Optimistic UI to deliver seamless, high-engagement user experiences. Equipped with a strong foundation in Agile methodologies and cross-functional collaboration, ready to align technical architectures with broader team and business objectives.

EDUCATION

B.Sc. in Computer Science & Artificial Intelligence   Oct 2023 – Jun 2027

South Valley National University   Qena, Egypt

- Cumulative GPA: 3.06 / 4.0
- Relevant Coursework: Data Structures & Algorithms, OOP, Database Systems, Software Engineering, Operating Systems.

PROFESSIONAL EXPERIENCE

Backend Intern   Jul 2025 – Aug 2025

Web masters ⧉   Cairo, Egypt (Remote)

- **Engineered** scalable backend architectures using **Node.js, Express, and MongoDB**, supporting robust data flow and improving overall system maintainability for the development team.
- **Architected** secure **RESTful APIs** for a high-traffic CMS (Blog) and a URL Shortener, implementing **JWT** authentication to ensure 100% secure end-to-end data access.
- **Integrated Firebase Realtime Database** to power instant messaging capabilities, decreasing data synchronization latency by **~40%** and delivering a seamless user experience.
- **Optimized MongoDB schemas** and enforced strict data validation rules utilizing **Joi**, accelerating query execution speed by **~30%** and eliminating database inconsistencies.

PROJECTS

Flurry v2.0 - Social Super App ⧉   Oct 2025 – Feb 2026

Full Stack (MERN, Socket.io, WebRTC, AI)

- Engineered an **Offline-first architecture** using **Service Workers** and optimized media delivery via **ImageKit**, reducing image payloads by up to **70%** and achieving a **90+ Lighthouse performance score**.
- Architected a **real-time messaging system** using **Socket.io** and **WebRTC**, achieving **near-zero latency (<50ms)** for seamless voice notes, video calls, and instant read receipts.
- Developed a scalable **Social Feed** and an **Instagram-like Stories System**, optimizing **MongoDB queries** to reduce data load times by **~40%** and supporting smooth **Infinite Scrolling**.

- Integrated **Google Gemini AI** for **smart group summaries** and implemented **Bi-directional Localization (RTL/LTR)**, enhancing accessibility and user engagement across different regions.

Blog Application (CMS) ⍈   Jul 2025 – Aug 2025
Full Stack (MERN, Cloudinary)
- Built a full-featured **Content Management System (CMS)** allowing users to manage posts with **rich text editing**, streamlining the content publication workflow.
- Implemented secure media uploads and on-the-fly optimization using **Cloudinary**, reducing image storage and bandwidth usage by **~60%**, coupled with robust **JWT authentication**.
- Designed scalable **RESTful APIs** following the **MVC architecture** to handle complex **CRUD operations**, improving overall maintainability and reducing API response times by **~25%**.

Admin Dashboard API System ⍈   Jul 2025 – Jul 2025
Backend (Node.js, Express, MongoDB)
- Architected a scalable **RESTful API** for user and record management, implementing **MVC Architecture** to ensure clean and maintainable code bases.
- Secured admin endpoints using **JWT Authentication** and enforced strict data validation with **Joi middleware**, blocking **100%** of invalid data payloads.
- Optimized database performance utilizing **MongoDB Aggregation pipelines** for complex data reporting, accelerating query execution speed by **~35%**.
- Implemented centralized **Error Handling** and documented API endpoints, reducing frontend-backend integration time by **~40%**.

SKILLS

Languages
JavaScript (ES6+), TypeScript, C++, Python (Basics) HTML5, CSS3.

Frontend Engineering
React.js, **Redux Toolkit**, **Tailwind CSS**, Framer Motion, **Next.js**, Bootstrap.

Backend & Database
Node.js, **Express.js**, **MongoDB (Mongoose)**, RESTful APIs, Firebase, JWT.

Advanced Technologies
Socket.io (Real-time), **WebRTC (Streaming)**, **PWA (Service Workers)**, **AI Integration (Gemini)**, Clerk Auth.

Tools & DevOps
Git & GitHub, Postman, Vite, Vercel, Sevella, Linux (Basics), VS Code.

CERTIFICATES

Front-End Development Diploma (React.js) ⍈
Sef Academy

Back-End Development Diploma (Node.js) ⍈
Sef Academy

Back-End Development Training Program ⍈
Web Masters

The Web Frontend Learning Guide ⍈
Udemy

LANGUAGES

Arabic
Native

English
Professional Working Proficiency