Ali Haggag *Software Engineer | MERN Stack*

✉ ali.haggag2005@gmail.com   📞 +20 102 308 1245

📍 Qena, Egypt   in 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.

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)

- Architected a **PWA Super App** featuring **WebRTC** video calls and **Socket.io** messaging with advanced states (Voice Notes, Read Receipts, Typing).
- Developed an Instagram-like **Stories System** with segmented viewing and a complex Social Feed supporting **Infinite Nested Replies** and **Auto-Moderation** (Soft Ban).
- Integrated **Google Gemini AI** for smart group summaries and implemented **Bi-directional Localization (RTL/LTR)** with dynamic theming for a global user experience.
- Engineered an **Offline-first** architecture using **Service Workers** and **Background Sync**, optimizing media delivery via **ImageKit** and securing APIs with **Rate Limiting**.

Blog Application (CMS) ⧉   Jul 2025 – Aug 2025
Full Stack (MERN, Cloudinary)
- Built a full-featured blogging platform allowing users to create, edit, and manage posts with rich text editing.
- Implemented secure image uploads and optimization using **Cloudinary** and user authentication via **JWT**.
- Designed RESTful APIs following **MVC architecture** to handle CRUD operations efficiently.

Admin Dashboard API System ⧉   Jul 2025 – Jul 2025
Backend (Node.js, Express, MongoDB)
- Architected a scalable RESTful API for managing users and records, implementing **MVC Architecture** for code maintainability.
- Secured admin endpoints using **JWT Authentication** and enforced strict data validation with **Joi** middleware.
- Optimized database performance using **MongoDB Aggregation** for complex data retrieval and reporting.
- Implemented centralized **Error Handling** and documented API endpoints for seamless frontend integration.

SKILLS

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

Frontend Engineering
React.js, **Redux Toolkit**, **Tailwind CSS**, Framer Motion, Next.js (Basics), 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