

Ali Haggag Software Engineer | MERN Stack

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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

South Valley National University

Oct 2023 – Jun 2027

Qena, Egypt

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

PROFESSIONAL EXPERIENCE

Backend Intern

Web masters ↗

Jul 2025 – Aug 2025

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 ↗

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

Oct 2025 – Feb 2026

- 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
<i>Full Stack (MERN, Cloudinary)</i>	
<ul style="list-style-type: none">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
<i>Backend (Node.js, Express, MongoDB)</i>	
<ul style="list-style-type: none">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