

# MOHAMMED AFSAL

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[LinkedIn](#) — [GitHub](#)

## PROFESSIONAL SUMMARY

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Full Stack MERN Developer with 4 months internship experience building scalable SaaS platforms. Expertise in REST APIs, Socket.io real-time systems, WebRTC, JWT authentication, and AI-powered RAG pipelines using OpenAI embeddings + pgvector. Proficient in AWS (EC2, S3, Lambda, SQS), Razorpay payments, and production e-commerce/social applications.

## SKILLS

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**Frontend:** HTML, CSS, JavaScript, TypeScript, React.js, Redux Toolkit, Next.js, Tailwind CSS, Bootstrap

**Backend:** Node.js, Express.js, MongoDB, PostgreSQL, REST APIs, Socket.io, WebRTC, JWT Authentication

**AI & Data:** OpenAI API, RAG, Vector Databases (pgvector), Supabase

**Cloud & Tools:** AWS (EC2, S3, Lambda, SQS), Cloudinary, Git, GitHub, Postman, Jira, Razorpay

## EXPERIENCE

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### Full Stack Developer (MERN) Intern

Nov 2025 – Feb 2026

ByteBridge Technologies, Kochi, Kerala

- Engineered a high-performance **Retrieval-Augmented Generation (RAG) pipeline** for the KnowService SaaS platform using **OpenAI embeddings** and **Supabase pgvector**, enabling semantic search across documents.
- Designed an **asynchronous document ingestion system** using **AWS SQS** and **AWS Lambda** to process uploaded files and background jobs, improving processing throughput by approximately **40%**.
- Implemented **real-time AI response streaming** using **Socket.io**, improving responsiveness during long-context retrieval queries.
- Developed a reusable **Chat widget** allowing external platforms to embed AI-powered chat interfaces into their applications.
- Contributed to the **ProServe360 clinic management SaaS platform** by implementing **patient appointment booking workflows**, **scheduling logic**, and **automated reminder calendar features**.

## PROJECTS

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### Tripsera - Travel Social Media

[Live Demo](#) [GitHub](#)

- Full-stack platform with Socket.io messaging, WebRTC video, Razorpay payments, Cloudinary media
- Clean Architecture + SOLID principles in TypeScript/Node.js/React.js/MongoDB stack
- Tech: TypeScript, React.js, Node.js, MongoDB, Socket.io, WebRTC, Redux Toolkit, Tailwind CSS

### Shoesea - E-commerce Platform

[GitHub](#)

- Scalable e-commerce with wallet payments, referrals, Razorpay, PDF invoices, AWS deployment
- Tech: Node.js, Express.js, MongoDB, EJS, Bootstrap, Razorpay, AWS

### Chatify - Real-time Chat App

[GitHub](#)

- Socket.io messaging with JWT, Google OAuth, online presence tracking
- Tech: React.js, Node.js, Socket.io, JWT, Google OAuth, Tailwind CSS

## EDUCATION

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### Bachelor of Science

2020 – 2023

University of Calicut, Kerala

Coursework: Data Structures, Algorithms, Programming

### Full Stack Web Development Program

Mar 2024 – Present

Brototype, Kerala

- Intensive project-driven training focused on **MERN stack development**, backend architecture, and scalable web application design.
- Developed multiple full-stack applications implementing **REST APIs**, **JWT authentication**, database schema design, and real-time communication using **Socket.io**.
- Practiced modern development workflows including **Git version control**, debugging, API testing with **Postman**, and collaborative project development.