

Mohith Raagesh B

Full Stack Developer | Chennai, India

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PROFESSIONAL SUMMARY

Full Stack Developer with 1 year of professional experience and 3+ years of independent development work carried out during my studies, building and shipping production web and mobile applications end to end. B.Tech in Computer Science and Engineering from Vellore Institute of Technology, Chennai (May 2025). Core stack spans Node.js, Express.js, React.js, Next.js, TypeScript, Flutter, MongoDB, PostgreSQL, and Redis, with hands-on experience in REST API design, real-time systems, third-party integrations, and cloud deployment. Proven ability to own complete products independently, from architecture and database design through to live deployment.

TECHNICAL SKILLS

Languages: JavaScript (ES6+), TypeScript, Dart, Python, SQL

Backend: Node.js, Express.js, REST API Design, JWT Authentication, MVC Architecture, Microservices Patterns

Frontend: React.js, Next.js, Vite, HTML5, CSS3, Bootstrap, Tailwind CSS

Mobile: Flutter (Android and iOS), Native SDK Integration, Android Build Tooling

Databases: MongoDB, Mongoose ODM, PostgreSQL, MySQL, Schema Design, Indexing, Query Optimization

Caching and Real-time: Redis, Socket.IO, WebSockets

AI and LLM: LangChain, RAG Pipelines, Claude API, Vector Databases, Prompt Engineering

Cloud and DevOps: AWS (Basics), Docker (Basics), CI/CD, Render, Vercel, MongoDB Atlas, pm2, Nginx (Basics)

Testing: Vitest, Unit Testing, Integration Testing, Postman

Tools: Git, GitHub, VS Code, MongoDB Compass, npm, Claude Code, GitHub Copilot

Concepts: Full Stack Development, System Architecture, API Security, Third-party Integrations, SOLID Principles, Agile

EXPERIENCE

Backend Developer, MotoDoctor Private Limited

Jul 2025 - Present

Chennai, India

- Design and develop production RESTful API services using Node.js and Express.js, powering core application features used daily by end users.
- Architect MongoDB collections and Mongoose schemas with validation, indexing, and relational data modeling to support scalable, high-volume data access.
- Implement JWT authentication, input validation, and centralized error handling middleware, improving API reliability and closing common security gaps.
- Collaborate with frontend developers through documented API contracts and Postman collections, reducing integration friction and accelerating delivery.
- Participate in code reviews and maintain code quality through structured MVC architecture and SOLID principles.
- Use AI-assisted development tools including Claude Code and GitHub Copilot to accelerate feature delivery, debugging, and documentation.

Full Stack Developer, Independent Contract Work

2022 - 2025

Remote, alongside B.Tech at VIT Chennai

- Delivered multiple production web and mobile applications end to end over 3 years, owning architecture, implementation, testing, and deployment independently.
- Built responsive frontends using React.js and Next.js, and cross-platform mobile apps using Flutter, shipping to both Android and iOS from a single codebase.
- Developed scalable backend services with Node.js and Express.js, including REST API design, authentication, third-party integrations, and database architecture.
- Engineered real-time systems using Socket.IO and WebSockets for live chat, GPS tracking, and event-driven notifications in production applications.
- Designed and optimized both SQL (PostgreSQL, MySQL) and NoSQL (MongoDB) databases, applying indexing and query optimization for performance at scale.

- Worked directly with non-technical stakeholders to scope requirements, demo working builds, and iterate rapidly within tight delivery timelines.

Software Development Intern, Mandy Technologies Private Limited

Oct 2023 - Dec 2023

Coimbatore, India

- Built responsive, cross-browser-compatible UI components using HTML, CSS, Bootstrap, and JavaScript.
- Assisted in backend integration with MongoDB, gaining practical experience across the full stack data flow.
- Performed functional testing and debugging to ensure application reliability before release.

PROJECTS

Pawzman - Pet Services Marketplace Platform | *Flutter, Node.js, Express.js, MongoDB, Redis, Socket.IO, JWT*

- Independently designed, built, and deployed a complete four-portal marketplace ecosystem in a single Flutter APK, covering a user app for discovery and booking, a provider app for listing and fulfillment management, a driver app for pet taxi navigation, and an admin panel for platform operations and verification.
- Architected the entire backend from scratch using Node.js, Express.js, and MongoDB, implementing role-based JWT authentication and access control across all four portals.
- Engineered real-time bidirectional chat and live GPS tracking using Socket.IO with room-based event broadcasting, delivering sub-second location and message updates during active bookings.
- Built a dynamic billing engine with automated GST-compliant invoice generation, calculating charges by service type, duration, and location with zero manual intervention.
- Applied Redis caching on high-frequency read endpoints and compound MongoDB indexing to maintain responsive performance under concurrent load.

Watchbots - Smart Home Security Platform | *Flutter, React, Vite, Node.js, Express.js, MongoDB, Hikvision IoT*

- Architected a three-tier production system comprising a Flutter mobile app, React and Vite admin dashboard, and Node.js REST API with MongoDB, supporting homeowner and monitoring-admin roles with JWT and refresh-token authentication.
- Built a SIA/Contact-ID event parser normalizing three distinct third-party message formats (JSON device events, JSON panel CID events, XML notification alerts) into a canonical schema with severity classification and deduplication windowing.
- Implemented live alarm ingestion through subscribe, long-poll, and acknowledge message-queue consumption, including automatic authorization self-healing and Firebase Cloud Messaging push fan-out on confirmed events.
- Implemented alarm panel control (arm, disarm, clear-alarm, zone bypass and configuration) over ISAPI transparent passthrough, handling partition resolution across a 32-partition panel.
- Implemented live camera streaming and recorded playback with time-window handling, stream-token retrieval, and snapshot capture rendered on-device through a native SDK integration.
- Deployed the backend to Render and admin dashboard to Vercel in a shared monorepo with environment-scoped secrets and MongoDB Atlas configuration.

ESpot - EV Road Trip Planner | *Next.js, TypeScript, Node.js, Express.js, MongoDB, Redis, OSRM, Leaflet*

- Built a full stack trip planner generating five optimized charging-stop plans (fastest, cheapest, fewest stops, highest rated, family-friendly) for any Indian intercity EV route and vehicle.
- Engineered a physics-based range estimation engine accounting for elevation gain and loss with regenerative braking, speed-dependent consumption, and DC charging-curve taper, validated by 51 unit tests using Vitest.
- Designed a route-corridor pipeline buffering OSRM polylines, sweeping charging-station datasets, filtering by connector compatibility, and running greedy constrained optimization per objective.
- Architected provider-agnostic service layers behind TypeScript interfaces with Redis TTL caching, MongoDB geospatial (2dsphere) fallback, and graceful degradation when upstream services are unavailable.
- Shipped a mobile-first UI with Leaflet maps, swipeable plan cards, debounced location autocomplete, and per-stop battery, charge-time, and cost breakdowns.

MORPH - Personal AI Assistant | *Node.js, Express.js, MongoDB, LangChain, Claude API, Chroma, RAG*

- Built a fully agentic AI assistant with real-time streaming chat, persistent cross-session memory in MongoDB, and a 15-tool agentic loop for computer control covering file operations, terminal commands, and application launching.
- Implemented a full RAG pipeline using LangChain text splitting, local Hugging Face embeddings, and a Chroma vector store with keyword-search fallback for offline resilience.

- Designed a defense-in-depth Safe Mode security layer with path-jailed filesystem access, risk-tiered action classification, server-side validated confirmation gates, and an append-only audit log.
- Integrated autonomous web search, vision-based image analysis, and dual-mode voice input and output into a single agentic conversation loop.

EDUCATION

B.Tech in Computer Science and Engineering

Vellore Institute of Technology, Chennai, India | GPA: 7.44 / 10

May 2021 - May 2025

CBSE Class XII

National Model Senior Secondary School, Coimbatore, India | 80%

May 2019 - May 2021