

# Raj Pratap Singh Sengar

## Full Stack Developer

20 year old self taught developer with expertise spanning full stack web development, Linux system administration, and security. Currently pursuing IITM BS in Data Science & ML while building production-grade applications with the MERN stack



## Contact

### Phone

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### Email

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### Web Site

[raj.codes](https://raj.codes)

## Education

### BS in Data Science & Machine Learning

Indian Institute of Technology, Madras

2024 - Present

## Expertise

- Python
- React.js
- MongoDB
- TypeScript
- Express.js
- Node.js

## Language

English

Hindi

## Projects

### ○ Curate: Full Stack Ecommerce application

[curate.raj.codes](https://curate.raj.codes)



- Full user authentication with secure session management
- Deployed: Vercel (frontend) + Render (4 backend services)
- MongoDB with text search indexes, TTL auto-expiration, virtual properties
- Built a microservices architecture with dedicated Auth, Products, Orders services and an API Gateway handling routing, rate limiting, and security headers
- Developed offline-first cart system using Redux Toolkit with optimistic UI updates, localStorage fallback, and graceful backend sync error handling
- Designed JWT authentication system with access/refresh tokens, bcrypt hashing, password reset flow, and role-based access control (customer/admin/superadmin)

### ○ Verrangana Law Chambers

[vlaw.raj.codes](https://vlaw.raj.codes)



- Full-Stack Development: Built a responsive law firm website using React 18 + TypeScript frontend and Node.js/Express backend with MongoDB database integration Responsive Layout for Mobile and Desktop
- Advanced Animation Implementation: Integrated GSAP with ScrollTrigger for sophisticated scroll-based animations, including accessibility support via prefers-reduced-motion media queries
- State Management Architecture: Implemented Redux Toolkit with custom middleware to persist user queries in localStorage, enabling offline query tracking across sessions
- RESTful API Design: Developed secure REST API with CORS configuration, comprehensive error handling (ValidationError, CastError, duplicate key handling), and health monitoring endpoints
- Client-Side Form Management: Created robust contact forms with real-time validation, error messaging, and async submission handling with loading states

### ○ Hospital Management Application (Python + Flask)

<https://github.com/RaajPratap/caresync>

- Multi-role access control: admin, doctor, receptionist
- Patient records with appointment scheduling and prescription management
- Staff management with doctor profiles and availability

## Certifications

### MERN Stack Developer Certification

GeeksforGeeks



### Job Ready Cohort Completion

Sheriyans Coding School

