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Gender: Male  
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Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2025	8.27

## PROFESSIONAL EXPERIENCE

### Mechximize Digitech pvt ltd | BACKEND DEVELOPER

[May'24-Jul'24]

- Streamlined hospital appointment processes, cutting **95%** of manual tasks and significantly enhancing system efficiency
- Built robust backend using NodeJS, ExpressJS, and MongoDB for a Doctor Appointment System, supporting **three** user levels
- Implemented **multilingual** support, streamlining **UI** and navigation for non-medical staff, and strengthening overall usability

## TECHNICAL PROJECTS

### TourMate API | SELF PROJECT

[Aug'24-Nov'24]

- Developed a scalable and secure **RESTful API** of a tour booking platform using **NodeJS**, **Express** and **MongoDB**, including **OAuth 2.0** for third party authentication, **bcrypt** for password hashing and **tour review** feature for user ratings and feedbacks
- Integrated **JWT** based authentication, role based access, and **cron jobs** for automated tasks like cleanups and notifications
- Deployed the application to **Heroku**, optimizing performance with **Redis** caching and ensuring seamless **CI/CD** integration

### Algorithm Visualizer | SUMMER OF CODE | WEB AND CODING CLUB | IIT BOMBAY

[Jun'24-Aug'24]

- Designed a React-driven **Algorithm Visualizer** with 7 algorithms, enabling real-time interaction for better user engagement
- Enhanced animation performance with **requestAnimationFrame** and **Memoization**, reducing render cycles for vast data
- Optimized with **Dynamic tress** and **Flip Move Animations** to enhance performance and provide interactive vizualization

### News Summarizer | SELF PROJECT

[Jan'24-Mar'24]

- Built an AI-powered **MERN** news summarizer with article summaries, auth, persistent history, and mobile-responsive design
- Integrated Hugging Face Transformers with **NewsAPI** to enable real-time summarization across various news categories, using a multi-model fallback system (BART-CNN, DialoGPT, DistilBART) with robust error handling for enhanced reliability
- Improved news consumption by providing quick, accurate summaries, reducing overload and advancing user productivity

### Chat App | WNCC | IIT BOMBAY

[Jun'24-Aug'24]

- Built secure real-time chat with WebSocket, Node.js, **Diffie-Hellman** key exchange, **AES-GCM** for end-to-end encryption
- Engineered smart key management with RSA-authenticated rooms, key rotation, fallback encryption, and live user tracking
- Designed a responsive system with web and terminal chat (via readline), message storage, and robust connection handling

### Clustered Express Server | LEARNING PROJECT

[March'25-April'25]

- Built a production-ready Express API server using Node.js clustering for multi-core processing and fault-tolerant architecture
- Implemented **BullMQ + Redis** queue system with **DLQ**, retries, and graceful failure handling for reliable async task execution
- Built a **Dockerized** microservice template with structured Winston logging for scalable, high-throughput backend systems

### Blog App | SELF PROJECT

[Oct'23-Dec'23]

- Self-hosted a MERN blog platform on an Azure VM to deeply understand networking, virtualization, and cloud deployment
- Configured production-grade infrastructure using **NGINX** (reverse proxy), **PM2**, and HTTPS/SSL with custom domain routing
- Hardened backend layer with **Helmet**, rate-limit, input sanitization, **CORS** control to learn real-world security best practices

## SKILLS AND EXTRA-CURRICULARS

Skills	MERN, Dockers,ThunderClient, OpenAI, Git, GitHub, SSR with pug, BootStrap, Framer Motion, WebSockets, JWT, OAuth2, RESTful APIs, nginx, Azure Functions, Virtualization, PM2, Deployment on Vercel, github pages, railway, Clustering, child process(NodeJS)
Programming	JavaScript (Vanilla), Css, Mongoose, React.js, Node.js, C++, Java, SQL
Sports	<ul style="list-style-type: none"><li>Led Table Tennis team as <b>Captain</b> at <b>Inter IIT Sports Meet</b>, earning Bronze Medal among <b>IITs</b> across India</li><li>Successfully captained the TT team to a Gold Medal at <b>Udghosh'23</b>, defeating <b>32</b> college teams nationwide</li><li>Led the hostel team to victory in the Table Tennis <b>GC</b> for Hostel 2, achieving back-to-back titles as <b>captain</b></li><li>Competed in the prestigious <b>SGFI</b> Table Tennis Tournament in Ahmedabad, facing <b>top players</b> nationwide</li></ul>
Social	<ul style="list-style-type: none"><li>Volunteered and contributed alongside <b>600+</b> donors in <b>Abhyuday's</b> Blood Donation Drive at IIT Bombay</li><li>Led <b>300+</b> volunteers in removing <b>2.5 tons</b> of garbage from Powai Lake om cleanup campaign by Abhyuday</li></ul>
Miscellaneous	<ul style="list-style-type: none"><li>Built a 4-wheeled robot with obstacle avoidance, controlled by robust mobile app in the XLR8 competition</li><li>Engaged in the Gyration Dance General Championship, where the team earned a silver medal for hostel 2</li></ul>