

# Chaitanya Rathod

chaitanya.rathod811@gmail.com | +917796807582 | LinkedIn | GitHub

## Skills

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**Languages:** Java, Python, C, HTML/CSS, JavaScript, SQL

**Technologies & Tools:** REST API, System Design, Git, GitHub, Docker, Spring Boot, Node.js, Express, MongoDB, React.

## Projects

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### Doctor Consulting App | MERN Stack, Socket.io

- Developed a full-stack medical consultation app using Express.js, MongoDB, Socket.io, and Material UI, enabling real-time video calls, chat functionality, and secure prescription sharing between doctors and patients.
- Implemented role-based authentication for doctors and patients, ensuring secure data management and storing user credentials and consultation history in MongoDB for efficient retrieval.
- Built a responsive, cross-device user interface with Material UI and integrated Socket.io for real-time communication, ensuring seamless functionality on mobile, tablet, and desktop devices, enhancing the overall user experience.

### Trading Web Application | MERN Stack

- Developed a full stack trading web application using the MERN stack (MongoDB, Express.js, React, Node.js) with robust user authentication (JWT, bcrypt) for secure account management.
- Utilized MongoDB for efficient data storage and Express.js/Node.js to build RESTful backend APIs, ensuring streamlined server-side logic and data integration.
- Architected a modular application structure, separating backend, frontend, and dashboard functionalities for enhanced scalability, maintainability, and ease of collaboration.

### Brand Monitoring Based on Logo Localization | Python, YOLOv5

- Developed a YOLOv5-based brand monitoring system for real-time logo detection across images and videos on both digital and physical platforms.
- Enhanced brand visibility and protection by accurately localizing logos in diverse visual content, improving the effectiveness of brand monitoring efforts..

### Air Traffic Control | Java

- Developed a multi-threaded air traffic control simulation to manage aircraft landings and takeoffs, optimizing runway utilization.
- Implemented synchronization mechanisms with deadlock prevention and starvation avoidance, ensuring safe and efficient operations.

## Education

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**Vishwakarma Institute Of Technology Pune**, BTech in Mechanical Engineering

Aug 2021 – May 2025

- GPA: 7.92
- **Coursework:** Object-Oriented Programming (OOP), Data Structures and Algorithms, Database Management, System Design, Operating Systems, Computer Network, Internet of Things (IoT)

## Academic and Extracurricular Achievements

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- Volunteered in a flagship college-organized blood donation drive, actively contributing to community health initiatives.
- Scored in a high percentile on the AMCAT examination, showcasing strong analytical, technical, and problem-solving skills.
- Led the development of a Python-based Text-to-Speech and Speech-to-Text conversion system, resulting in the approval of Patent No. 2022/12270 in the Republic of South Africa.

## Certificates

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- **Docker:** Completed "Learning Docker" Course– Gained hands-on experience with Docker products, containerization techniques, and best practices for deploying and managing containers.
- **AWS:** Completed AWS Essential Training for Developers on LinkedIn Learning – Gained foundational skills in cloud computing, AWS services, and deployment.