

# Rohit Patil

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🔗 GitHub    🌐 Portfolio    </> LeetCode

## Profile Summary

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Final-year Computer Science student with a strong foundation in Full Stack Development and AWS Cloud. Passionate about building scalable, AI-integrated web applications, with hands-on experience deploying projects like an AI-powered blog editor and real-time detection systems.

## Education

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### BMS Institute Of Technology and Management

Dec 2022 – May 2026

BE in Computer Science

- CGPA: **7.90/10.0**
- **Coursework:** Data Structures & Algorithms, Operating Systems, DBMS, Computer Networks, OOPS.

## Technical Skills

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**Languages:** Java, Python, JavaScript (ES6+), TypeScript, SQL, HTML5, CSS3

**Frameworks/Libraries:** React.js, Node.js, Express.js, Tailwind CSS, Bootstrap

**Testing, Tools & Cloud:** AWS (EC2, S3, Cloudfront, RDS), Git, GitHub, Postman

**Databases:** MySQL, PostgreSQL, MongoDB

## Projects

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### AI-Powered Blog Editor

GitHub [↗](#)    Live Demo [↗](#)

**Tech Stack:** *TypeScript, React.js, Node.js, PostgreSQL, Redis, AWS EC2, Nginx, Gemini API*

- Built a full-stack blogging platform using **React.js** and **Node.js**, focusing on clean UI design and scalable backend architecture.
- Integrated **Gemini API** for content assistance features with a **ChatGPT-4.0 fallback** to handle API unavailability.
- Designed and tested RESTful APIs with proper request validation, structured responses, and error handling using **Postman**.
- Improved backend performance by implementing **Redis caching** and optimizing database query patterns.
- Deployed the application on **AWS EC2** with **Nginx** as a reverse proxy, gaining hands-on experience with cloud deployment.

### Ambulance Detection & Routing System

GitHub [↗](#)

**Tech Stack:** *Python, YOLOv5, Flask, OpenCV, Google Maps API*

- Developed a computer vision-based emergency vehicle detection system using **Python**, **YOLOv5**, and **OpenCV**.
- Built a **Flask** backend to process detection outputs and expose them through REST APIs.
- Applied structured testing and validation techniques to improve detection reliability and reduce false positives.
- Integrated **Google Maps API** to dynamically compute optimal routing paths based on system outputs.
- Optimized inference and request-handling workflows using asynchronous processing for improved responsiveness.

## Achievements & Leadership

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- **Hackathon Finalist:** Secured Top 10 rank among 50+ teams by leading the development of a Pets Ecommerce Website within 24 hours.
- **Problem Solving:** Solved 200+ Data Structures and Algorithms problems across LeetCode and CodeForces.
- **Project Lead:** Guided a 4-member team to win 2nd place in the College Project Expo for designing a Solar Panel Tracking System.

## Certifications

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- **The Complete Full-Stack Web Development Bootcamp** – Udemy [\[View Credential\] ↗](#)
- **Cloud Computing Fundamentals** – Educative.io [\[View Credential\] ↗](#)
- **The Good Parts of AWS** – Educative.io [\[View Credential\] ↗](#)