# RISHAV RAJ

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MCA Student at NIT Jamshedpur — Full-Stack Developer — Competitive Programming Enthusiast

#### Education

#### National Institute of Technology (NIT) Jamshedpur

Master's Degree in Computer Applications

2023 - 2026

• Current CGPA: 7.98/10.0

LN Mishra College

Bachelor's Degree in Computer Applications

Muzaffarpur, Bihar

Jamshedpur, Jharkhand

2019 - 2022

• CGPA: 7.94/10.0

## Technical Skills

Programming Languages: JavaScript, TypeScript, Java, C++, Python

Frontend Technologies: React.js, HTML5, CSS3, Tailwind CSS, Responsive Design

Backend Technologies: Node.js, Express.js, RESTful APIs

Databases: MySQL, MongoDB

DevOps & Tools: Docker, Docker Compose, Git/GitHub, Postman, VS Code

Specializations: Data Structures & Algorithms, Version Control

# Projects

#### Trie AutoComplete - Intelligent Search System Link

C++, Docker

• Developed high-performance full-stack autocomplete app with custom C++ Trie backend handling thousands of concurrent insertions, Achieved sub-100ms response time through optimized algorithms and efficient memory management for real-time prefix searches, Implemented RESTful API architecture with dynamic word insertion and intelligent prefix matching with relevance scoring, Built persistent file-based storage that stores words with automated backup. Docker containerization reduced setup time.

#### NoteBook - Full-Stack Blogging Platform Link

Node.js, React, PostgreSQL, Prisma ORM

- Architected comprehensive CRUD blogging platform with sign-up, sign-in features.
- Implemented secure authentication system using JWT bearer tokens, password hashing.
- Built responsive React.js frontend with component-based architecture, state management, and modern UI/UX principles
- Designed scalable PostgreSQL schema with optimized queries, indexing, and relationship management for enhanced performance.

#### MRP - Placement Record System Link

Next.is, Team Collaboration

- Collaborated in 5-member team to enhance placement management system serving 500+ students at NIT Jamshedpur
- Implemented advanced pagination with search/sort functionality using Next.js and modern React patterns
- Optimized database queries and data fetching strategies, reducing page load time by 40% and improving UX
- · Maintained code quality standards, conducted thorough reviews, and added responsive UI with accessibility features.

# Achievements & Certifications

NIMCET 2023 - All India Rank 358/40,000+ candidates

National Level Achievement

• Exceptional performance leading to admission in prestigious MCA program at NIT Jamshedpur

## Competitive Programming Excellence

Multiple Platforms

- HackerRank 5-star in Problem Solving LeetCode 500+ problems with contest rating 1439
- CodeChef max rating: 1229 Codeforces max rating: 894

# Leadership & Social Responsibilities

#### Sankalp Society - Educational Volunteer

NIT Jamshedpur — 2023 - Present

- Mentored 20+ underprivileged students in mathematics, science, and computer fundamentals with 85% improvement
- Designed comprehensive educational programs focusing on literacy, numeracy, and digital skills for community development

#### National Service Scheme (NSS) - Team Lead & Volunteer

NIT Jamshedpur — 2023 - Present

- Led diverse community initiatives reaching 200+ beneficiaries. Managed 15+ volunteer teams for large-scale events
- Organized health drives, environmental campaigns, and social awareness programs across multiple village communities