

# KETAN TRIPATHI

Nagpur, Maharashtra, India | Phone: +91 7879412384 | [ketantripathi807@gmail.com](mailto:ketantripathi807@gmail.com) | [LinkedIn](#)

Computer Science undergraduate at VNIT Nagpur with a strong foundation in full-stack web development, data structures, and systems programming. Passionate about building scalable applications and contributing to impactful projects in the tech domain.

## EDUCATION

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### VISVESVARAYA NATIONAL INSTITUTE OF TECHNOLOGY, NAGPUR

Bachelor of Technology

Major in Computer Science and Engineering

CGPA: 8.23/10.0;

Nagpur, Maharashtra

Expected May 2026

### RANI LAXMIBAI PUBLIC SCHOOL, JHANSI

Higher Secondary School Program in Science and Mathematics

Jhansi, Uttar Pradesh

Apr 2020 - Mar 2021

## PROJECTS

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### FITNESS MANAGEMENT SYSTEM

[Github](#)

Feb 2024 – Mar 2024

- Architected and implemented critical logic for managing datasets using C
- Designed and integrated advanced data structure AVL Trees to optimize performance
- Streamlined core functionalities to support instrumental operations within the system

### SKILL EXCHANGE PLATFORM

[GitHub](#)

Oct 2024 – Nov 2024

- Developed a full-stack web application to facilitate peer-to-peer skill trading using MERN stack
- Engineered dynamic interfaces for user authentication, skill listings, and request management
- Integrated real-time chat functionality using WebSockets (Socket.IO) to allow seamless communication between users
- Designed secure user authentication using JWT and bcrypt; structured MongoDB schemas for scalable user and skill data
- Built RESTful APIs and responsive React components for dynamic user experience

### HEAP MANAGEMENT PROJECT

[GitHub](#)

- Simulated dynamic memory allocation strategies by engineering a Best Fit memory manager in C
- Modeled real-world heap allocation using linked lists for precise block allocation and fragmentation control
- Enhanced system simulation with rigorous edge-case handling and modular architecture

## TECHNICAL SKILLS

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- **Languages:** C, C++, Java, Python
- **Web Technologies:** HTML, CSS, JavaScript, Tailwind CSS, ReactJS
- **Databases:** MySQL, MongoDB
- **Tools:** Git, GitHub, Visual Studio Code
- **Areas of Interest:** Web Development, Cybersecurity, Software Development

## POSITION OF RESPONSIBILITY

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|---|---------------------|
| • Sports Secretary in Hostel Council                | Feb 2024 – May 2024 |
| • Core-Coordinator in Annual Technical Fest AXIS'25 | Jul 2024 – Mar 2025 |
| • Advisory in Annual Technical Fest AXIS'26         | Apr 2025 – Present  |

## ADDITIONAL

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**Languages Known:** English (Fluent), French (Fluent), Hindi (Native)

**GATE 2025 AIR Rank :** 5476