KETAN TRIPATHI

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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

VISVESVARAYA NATIONAL INSTITUTE OF TECHNOLOGY, NAGPUR Nagpur, Maharashtra Bachelor of Technology in Computer Science and Engineering

Nov 2022 - June 2026

CGPA: 8.24/10.0;

RANI LAXMIBAI PUBLIC SCHOOL, JHANSI

Jhansi, Uttar Pradesh

Higher Secondary School Program in Science and Mathematics

Percentage: 98.8 Apr 2020 - Mar 2021

PROJECTS

MULTIAGENT WEBSITE DEVELOPMENT SYSTEM | CrewAI, LLMs, Langgraph

Mar 2025 – Apr 2025

- Built multi-agent system with 3 specialized AI agents (Requirements Analyst, Backend Developer, Frontend Developer) using Crew AI framework, reducing manual development time by 60% through automation.
- Developed Flask-MongoDB backend generator that produces production-ready APIs with 100% endpoint accuracy by parsing requirements and auto-creating models, routes, and documentation.
- Engineered frontend agent to build responsive UIs with vanilla HTML/CSS/JS that perfectly matched backend APIs, implementing mobile-first designs and WCAG accessibility standards.

AXIS'25 WEBSITE | Next JS, Google Firebase, cPanel

Oct 2024 – Feb 2025

- Designed and launched the official AXIS'25 tech festival website for VNIT utilizing the Next is framework, guaranteeing a scalable and high-performance user experience.
- Incorporated Google Firebase for real-time database management and established secure Google Authentication for user access and registration.
- Hosted the platform on cPanel, resulting in over 1,000 successful user registrations and exceeding 5,000 page views, showcasing system reliability and robust user engagement.

FITNESS MANAGEMENT SYSTEM | C, B+ Trees

Mar 2024 – Apr 2024

- Developed a Fitness Management System in C utilizing B+ Tree data structure, Makefile, and file handling to efficiently manage member records, workout schedules, and progress tracking.
- Implemented core functionalities including adding/updating member profiles, ability to create groups, generating leaderboard, and ensuring optimized data retrieval through B+ Trees.
- Integrated advanced features for personalized fitness recommendations and strategic performance tracking, improving system responsiveness and decision-making support.

TECHNICAL SKILLS

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

POSITION OF RESPONSIBILITY

Sports Secretary in Hostel Council

Feb 2024 - May 2024

Core-Coordinator in Annual Technical Fest AXIS'25

Jul 2024 – Mar 2025

ADDITIONAL

GATE 2025 AIR Rank: 5476