Vyshnavi Madhusudhan

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EDUCATION

VIT Bhopal University

Bachelor of Technology in Computer Science and Engineering — Sep 2022 - Current

CGPA: 8.48 — Bhopal, Madhya Pradesh

SKILLS

Languages: C++ , JAVA

Frameworks/Technologies: HTML5,CSS,React.js,Tailwind CSS,Node.js, Express.js,Socket.IO

Databases: MySQL

Core Subjects: Data Structures and Algorithms, Object-Oriented Programming , Database Management Systems , Operating Systems , Computer Networks

INTERNSHIP

Web Developer Intern | Nayara Energy Limited — Oct 2024 - Nov 2024

- Engineered an **internal marketplace**, including product listing, advanced search, and administrative verification.
- Utilized **Git** for version control and maintained code quality standards across production modules
- Developed over **10 production modules** and optimized **development workflows**, accelerating the feature
- Enhanced **UI/UX navigation and design** based on employee feedback, boosting usability scores by **25%**.
- Contributed to a **scalable, secure platform** by implementing **React.js , Tailwind CSS**.

PROJECTS

Chess Game — Dec 2024

- Developed a **real-time two-player chess application** with synchronized game state and **<150ms latency per move**.
- Implemented **move validation, check/checkmate detection, and full game rules**, ensuring **100% compliance**.
- Integrated **countdown timers** to simulate competitive play and designed a **responsive UI** with **99% device compatibility**.
- Enabled **real-time communication** using **Socket.Io**, scaling to **100+ concurrent sessions** without performance loss.
- Applied **performance optimizations** in state synchronization, reducing server load by **30%**.
- Conducted **unit testing and debugging** for edge cases like stalemate, draw, and illegal moves, ensuring robust gameplay.
- **Tech Stack**: **HTML5, CSS ,JavaScript , Node.js, Express.js, Socket.IO**

Shoe - Website — Nov 2024

- Designed and built a **responsive, visually appealing website** for a shoe brand
- Developed over **15 product pages** with robust filtering and sorting to mimic a real shopping experience.
- Integrated **customer testimonials and trend guides** to boost user engagement and brand credibility.
- Implemented secure **user authentication and shopping cart** functionality to streamline the checkout process.
- **Tech Stack**: **React.js, Tailwind CSS**

Secure Chat Application — Jun 2025

- Built a **real-time chat app** with **private/group messaging**, supporting **active users**.
- Implemented **end-to-end encryption**, reducing security risks by **95%**.
- Optimized **real-time communication** with **Socket.IO**, improving message delivery speed by **25%**.
- Implemented client-side data storage for message history, allowing for instant loading of conversations and seamless user experience without a constant server connection.
- Conducted **penetration testing** and fixed vulnerabilities, ensuring strong application security.
- **Tech Stack**: **React.js, Tailwind CSS, Node.js, Express.js, Socket.IO**

Achievements & Extracurriculars

Frontend Developer, Heritians Organization — Aug 2023– Jan 2024

- Collaborated with **VIT Bhopal and Unnat Bharat Abhiyan** to implement **sustainable village** initiatives, positively impacting 1000+ villagers.

Web Developer, Health-O-Tech Club — Jul 2022 - Dec 2024

- Maintained club projects & official website for smooth functionality and user experience.
- **Tech: React.js, Tailwind CSS.**

Technical Team Member, Cisco Community VIT Bhopal — Jun 2024 - Nov 2024

- Managed technical activities & supported workshops and competitions.

Achievements

- Qualified for Smart India Hackathon (2023) after clearing all 3 internal rounds.
- Ranked Top 20 at NASA International Space Apps Challenge Hackathon(2023).
- Open Source: GirlScript SoC'23 (Top 120), Social SoC 2024, Hacktoberfest.