Vatsalya Rastogi

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Aspiring Full-Stack Developer — Passionate about AI, DevTools, and Scalable Systems

TECHNICAL SKILLS

Programming Languages: Python, C, Java, JavaScript, TypeScript
Web & Frameworks: React, Express.js, Node.js, Vite, Tailwind, HTML, CSS, Three.js, FramerMotion
Cloud & DevOps: Firebase, GitHub Actions , Docker, Docker Swarm, AWS(S3, EC2, Lambda - Learning in Progress)
Database Management: MongoDB, MySQL, NoSQL, Mongoose
Other: CI/CD pipelines, AGILE Methodologies, REST APIs, Websockets
Professional Certifications: CS50's Introduction to Programming with Python (Harvard University)

EDUCATION

University of Windsor – Bachelor of Computer Science (Honors) Sep 2023 – Present

Specialization in AI and Minor in Mathematics
- **Major Average:** 94%
- **Relevant Coursework:** Data Structures Algorithms, Managing Databases, OOPS in Java

PROJECTS

Reactutor | *TypeScript, React, Tailwind, Firebase, GroqAI, SandpackAPI* Feb 2025 – Present

Live Demo | GitHub
- Built an interactive learning platform for beginner React developers with live in-browser coding via **SandpackAPI**.
- Integrated **GroqAI's LLM API** to deliver real-time, personalized hints and explanations based on user code.
- Containerised with Docker and deployed using AWS Fargate.

VBC - Virtual Bank of Canada | *MongoDB, React, Express.js, Node.js, Axios* Dec 2024 – Present

- Architected a secure, scalable digital banking platform featuring robust user authentication, account management, and transaction processing.
- Handled 1000+ simulated transactions with state consistency to ensure seamless banking operations.

Personal Portfolio Website | *React, TypeScript, Vite, Tailwind, Framer Motion, Three.js* Jan 2025 – Present

Live Demo
- Developed a responsive portfolio website showcasing projects, skills, and technical expertise, optimized for performance with lazy loading.
- Utilized advanced visualization and animation techniques (Three.js, Framer Motion) to enhance user engagement and optimize performance.

HACKATHONS

WinHacks 2025 Feb 2025

Team Lead & Developer – University of Windsor Hackathon *Windsor, ON*
- Facilitated brainstorming sessions, delegated technical tasks, and maintained GitHub collaboration and deadlines throughout the hackathon.
- Gained practical experience working under pressure, prioritizing features, and presenting the solution to a panel of judges.

EXPERIENCE

Teaching Assistant – Algorithms and Programming II, Key Concepts in CS Sep 2024 – Present

University of Windsor *Windsor, ON*
- Supported 100+ students across two courses by guiding lab sessions, debugging C/C++ code, and offering individualized help during office hours.
- Improved lab performance and course grades through consistent mentorship and hands-on support.

Crew Member (Seasonal) May 2024 – Aug 2024

City of Windsor *Windsor, ON*
- Maintained 10+ public parks, ensuring safety and cleanliness for 500+ daily visitors.
- Developed strong communication and time-management skills in a fast-paced outdoor environment.