Vikramjeet Singh

Education

University of Guelph

Graduating Apr 2025

Bachelor of Computing, Honors Major in Computer Science

• Achieved Dean's Honor List with a GPA: 3.5/4.0.

Guelph, ON

Work Experience

Mathnasium Aug 2023 – Present

Programming/Math Instructor

Guelph, ON

- Instructed 15+ students in fundamental web development with HTML, CSS, and JavaScript creating 5+ projects.
- Mentored 20+ students in Python (including arrays) and SQL, improving problem-solving abilities and database understanding by 20%.

 ${f Tech Swap Zone}$ May 2024 – Aug 2025

Full Stack Developer intern

Cambridge, ON

- Engineered scalable user profiles and interactive dashboards using React.js (TypeScript) and Spring Boot (Java), boosting core application functionality by 15%.
- \bullet Optimized backend service deployment by 20% leveraging Firebase for secure authentication and MariaDB for robust data persistence.
- Implemented an AI chatbot via Google Gemini API, addressing common queries and cutting service agent dependency by 25%, reducing operational costs.
- Streamlined development and reduced deployment time by 30% through **Docker containerization** and optimizing CI/CD pipelines for continuous delivery.

TechSwapZone May 2023 – Aug 2023

Frontend Developer intern

Cambridge, ON

- Drove 15% user engagement increase by re engineering 3+ UI components using React.js and Tailwind CSS
- Improved user retention and organic traffic by optimizing codebase, cutting load times 20% by implementing lazy loading and code-spliting, boosting SEO 2 positions
- Implemented unit tests using React Testing Library and Jest, increasing code coverage by 15% on SonarQube, reducing regressions
- Migrated jQuery-based legacy interfaces to React.js, improving performance by 25% and enhancing maintainability

Projects

Prepwise | Website

Next.js | Firebase | Google Gemini | Vapi AI

- Developed AI-driven interview platform with Next.js and Firebase, integrating Google Gemini for AI voice agents and instant feedback, enhancing UX for potential 100+ users.
- Implemented **core features** (authentication, interview creation, dashboard) with **Tailwind CSS**, ensuring a responsive, modern UI/UX across **all devices**.

Apaline EcoLens

React | Spring Boot | MariaDB | Docker | Jest | JUnit | CI/CD

- Developed **EcoLens**, a **React/Spring Boot** compliance dashboard monitoring **real-time wastewater emissions** via diverse datasets and geospatial maps.
- Implemented robust testing (Jest, JUnit) across 4 Docker containers with MariaDB and CI/CD, reducing
 defects and deployment time by 15%.

8 Ball Pool (2 Player)

C | Python | SWIG | CSS | JavaScript

- Developed 2-player 8 Ball Pool game with C for physics simulation, interfaced via SWIG to a Python web server.
- Built interactive frontend with CSS/JavaScript and handling 10+ complex edge cases for realistic gameplay.

Technical Skills

Languages: Python, Java, SQL, HTML5, CSS, JavaScript, TypeScript, C

Developer Tools & FrameWorks: Git, Docker, Jira, Spring Boot, PostgreSQL, NextJS, ReactJS, ThreeJS, NodeJS