Vansh Patel

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Education

University of Manitoba *May 2021 – Aug 2025*

B.Sc. (Hons) in Computer Science

- GPA: 3.5 (Dean's Honour List, multiple terms).
- Relevant Coursework: Data Structures & Algorithms, Cyber Security, Operating Systems, Artificial Intelligence, Distributed Computing, Databases, Computer Networks, Software Engineering & Debugging

Experience

Game Developer *Winnipeg, CA*

YouLearnt *May 2024 – Aug 2024*

- Developed a math-based browser game for grades 3–4 using Phaser.js, JavaScript, and HTML5, featuring adaptive difficulty and interactive player feedback.
- Collaborated with designers to align gameplay and visuals with learning goals, rapidly iterating based on student feedback and testing.
- Designed backend REST APIs with Node.js and MongoDB to track skill mastery, enable secure progress saving, and drive personalized experiences.
- Optimized game asset loading, reducing startup time by 25%, and built CI/CD pipelines to streamline feature releases.

Student Advising Assistant *Winnipeg, CA*

University of Manitoba *Apr 2022 – Aug 2025*

- Built SQL queries and reports on student performance, enabling data-driven advising for 1,000+ students.
- Automated reporting tasks with Python and SQL, reducing workload by 40% and supporting efficient data engineering.
- Partnered with academic staff to translate user requirements into technical solutions, improving decision-making and student experience.

Projects

Match-Pro — AI-Powered Resume Analysis Platform *GitHub*

- Built full-stack web application with React.js, Node.js, and Firebase authentication for intelligent resume optimization.
- Integrated OpenAI GPT-3.5 API to generate ATS compatibility scores and personalized suggestions.
- Implemented secure file upload system with AWS S3 storage and PDF parsing for resume processing.
- Deployed backend on Azure and frontend on Vercel with automated CI/CD pipeline for scalable architecture.

ExoSky — 3D Exoplanet Explorer *GitHub*

- Built an interactive visualization tool with Three.js, integrating NASA's 5,500+ exoplanet records via APIs.
- Designed backend with Node.js, Express, and MongoDB; optimized queries to handle 100k+ requests/month.
- Applied core web principles (HTTP requests, DOM updates, SSL-secured APIs) to ensure secure, standards-compliant functionality.
- Deployed on Azure with CI/CD, ensuring scalable and reliable performance.

Harmonix — Android Music App *GitHub*

- Designed a native Android music player in Java with playlist persistence using SQLite.
- Implemented offline mode, background playback, and responsive UI for seamless user experience.
- Practiced test-driven development with JUnit and Mockito, achieving 90% unit test coverage.

Skills

- **Languages:** Java, Python, C++, C#, JavaScript, TypeScript, SQL, Golang
- **Frameworks & Libraries:** ReactJS, NextJS, NodeJS, Spring Boot, Flask, Django
- **Backend & Services:** REST APIs, microservices, scalable/fault-tolerant systems, distributed systems
- **Cloud & Tools:** Azure, AWS (EC2, S3, IAM), Docker, Kubernetes, GitHub Actions, Azure DevOps, CI/CD, monitoring & logging tools
- **Cybersecurity & Security Tools:** Secure coding practices, Acunetix (basic exposure), CVSS & CWE familiarity