

Halah Mhanni

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EDUCATION

Bachelor of Computer Science (Honors) Statistics Minor

Sep. 2022 – Dec. 2026

University of Manitoba

Winnipeg, MB

Awards: .devHacks2024 Hackathon Fan's Choice Award, President's Scholar, Emerging Leader Award, Dean's Honour List, Queen Elizabeth II Entrance Scholarship

TECHNICAL SKILLS

Languages: Java, Python, C, C++, SQL (MySQL, SQLite), JavaScript, TypeScript, R, Processing

Frameworks & Tools: React, Vue, Spring Boot, Hibernate, Vite, Node.js, Next.js, Figma, JPA, Firebase, AWS, Azure

Coursework: Operating Systems, Distributed Computing, Computer Architecture, Software Engineering, Object-Oriented Programming, Databases, DSA, Human-Computer Interaction I & II, Theory of Automata & Formal Languages

EXPERIENCE

Software Developer

May 2025 – Aug. 2025

Gouvernement du Canada, Agriculture and Agri-Food (AAFC)

Winnipeg, MB

- Engineered full-stack agricultural solutions using **Spring Boot**, **Vue.js**, and **React**, reducing data processing time by 30% through optimized API design.
- Architected **RESTful microservices** using **Spring Boot** and **Hibernate**, handling 5,000+ daily requests and improving system scalability for Canada's agricultural data infrastructure.
- Modernized legacy systems by integrating **cloud-native** technologies, reducing deployment times by 40%.

CS106A Section Lead, Python Programming

Apr 2025 – Jun. 2025

Stanford University, Code In Place

Remote

- Lead weekly sections with 15+ students through core Python programming concepts including algorithmic thinking, data structures, and computational problem-solving, with 100% of students achieving course competencies
- Conducted in-depth code reviews for weekly submissions, providing tailored feedback on Python best practices and algorithm efficiency
- Pioneered a peer programming initiative that reduced common syntax errors by 30% while fostering collaborative problem-solving skills

Game Development Student

Oct 2023 – Apr 2024

Ubisoft

Winnipeg, MB

- Developed a 3D infinite scroller game in **C++** using the Ubisoft API, featuring custom **pathfinding AI**, collision detection, and physics-based interactions.
- Optimized the game loop to maintain a stable **60 FPS** by reducing draw calls by **35%** through object pooling and efficient scene management.

PROJECTS

Sentivest: AI Stock Sentiment Tracker | | *React, FastAPI, FinBERT, GPT-4, PostgreSQL*

Jul. 2025 – Present

- Building a full-stack AI platform that analyzes stock market sentiment using **FinBERT**, **VADER**, and **OpenAI GPT-4**, aggregating real-time data from **NewsAPI**, **Reddit**, and **Twitter**.
- Developing a scalable **FastAPI backend** with RESTful endpoints, integrating **PostgreSQL (Supabase)** for time-series storage and stock portfolio tracking.
- Designing a responsive **React + Chart.js dashboard** to visualize sentiment trends, news clustering, and **price correlation analysis** using **Alpha Vantage stock data**.

Pomoverse: Your Study Companion | *React, Supabase, PostgreSQL, Vite* 

May 2025 – Jun. 2025

- Developed a full-stack productivity app with **real-time database sync**, task management, dynamic theming, and **Spotify integration**, reaching over **650+ unique users**.
- Won **DevHacks Fan's Choice Award** and **Best UI Award** among 100+ projects for innovative UX, responsive design, and user engagement features.
- Engineered and deployed a production-ready web app using **React 18**, **Vite**, **Supabase**, and **PostgreSQL**; optimized for performance and scalability, hosted on **Vercel** with CI/CD and a fully responsive UI.

Discord'nt: Distributed Chat System | *JavaScript, TCP, REST API*

Oct. 2024 – Nov. 2024

- Engineered a **low-level distributed chat application** using raw **TCP sockets** and custom message protocols, enabling real-time communication between clients and a fault-tolerant multi-threaded server.
- Built a lightweight **custom in-memory database** for managing user sessions and message history without relying on third-party services or frameworks.
- Designed and deployed a **distributed server architecture** to handle high-concurrency message broadcasting and load balancing across multiple nodes.