

Muhammad Huzaifa Irfan

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Education

2023–2027: High School Diploma – Pembina Trails Collegiate, Winnipeg

2025–2027: Full Stack Development – Manitoba Institute of Trades and Technology (MITT), Winnipeg (dual-credit)

Experience

CanU Canada

Software & Database Developer

Winnipeg

Mar 2025 – Present

- Built and launched CanU's volunteer portal (React, Firebase, Salesforce): 800+ active volunteers, 1,800+ profiles, gamified badges
- Designed a graph-based matching algorithm pairing volunteers with opportunities; extending it to match students with industry mentors
- Lead the tech team, building new products including RISE+

University of Manitoba College of Medicine, George & Fay Yee Centre for Healthcare Innovation

Research Assistant

Winnipeg

Aug 2026 – Present

- Built an automated pipeline that maps diagnosis codes between ICD versions using transformer embeddings and similarity search, replacing manual crosswalks; first high school student in Dr. Lisa Lix's lab
- Improved F1 from 0.42 to 0.52 (ICD-10-CA) and 0.72 to 0.76 (ICDA-8) over the published baseline; a trained scoring model reached 0.67 and 0.84 on unseen codes github.com/huznot/ICD-Crosswalk
- Built casedefs, a Python library and CLI that applies 99 validated case definitions and comorbidity scores to health claims data; runs all 99 on 2M claims in ~25s github.com/huznot/casedefs

Royal Aviation Museum of Western Canada

Software Developer

Winnipeg

Nov 2025 – Jan 2026

- Wrote most of the Python backend for a 4-kiosk interactive exhibit teaching the four-stroke engine cycle
- Built a multi-threaded HTTP server with REST endpoints that syncs game state across kiosks and a shared progress display, with randomized stage-to-kiosk mapping each round github.com/CodyWallbridge/RAM-...

CMCCF, Manitoba Association of Math Teachers, PoolPros, Muslim Youth Hub

Freelance Web Developer

Winnipeg

Mar 2025 – Present

- CMCCF: Built CollaborationNet, a platform connecting peacebuilding initiatives across Canada, and redesigned the org's website
- Manitoba Association of Math Teachers: Rebuilt the website in WordPress as a provincial math resource hub
- Set up and manage the web server infrastructure for both organizations (PHP, MySQL): hosting, deployments, and ongoing maintenance

BubbleBrew (Junior Achievement)

VP of Technology

Winnipeg

Nov 2025 – Apr 2026

- Built the e-commerce site, the company's largest revenue stream (25%+ of sales); won JA Manitoba Best Website of the Year

Projects

MOSI: Manitoba Outdoor Safety Index (React Native, TypeScript). Turns 12 live government APIs into regional risk scores, with disease models validated on real West Nile data. Mentored by Dr. Michael Drebot (ex-National Microbiology Lab director). MSSS Silver, CMOS Award. github.com/huznot/MOSI

Frugal: Camera-first price finder (React Native, TypeScript). Identifies products with Gemini vision, pulls Google Shopping prices, and ranks nearby stores by distance. Rideau Hall Ingenious+ Award (\$1,000). github.com/huznot/frugal-app

CleanIt: Recycling rewards app (React Native, Expo). Cofounder & lead dev; item scanning, rewards, and a map of 160+ drop-off points. Raised \$2.5K+, won the Asper Pitch Competition, pitched to the Mayor. github.com/huznot/CleanIt

Leadership

2024–2026: Manitoba Student Advisory Council – 1 of 32 province-wide (two terms); co-wrote 3 policy reports to the Minister of Education (AI, climate, emergency preparedness)

2026–Present: Project Pulse Winnipeg – University Relations Director, student-run health sciences conference (150+ attendees)

Achievements

2026: CyberTitan National Cybersecurity Competition – 4th Place, Team Captain (CyberPatriot internationally top 50)

2026: University of Toronto National Book Award

2025, 2026: Skills Manitoba Web Development – Silver Medal (2x)

2026: B. History Zueike Award for Excellence in Community Leadership (\$1,000)

2024, 2025: CanU Lead Award/Scholarship (2x)

Skills & Activities

Languages: Python, TypeScript, JavaScript, Go, R, SQL, Java, C#, C++, PHP

Frameworks: React, React Native, Expo, .NET, Firebase, Salesforce, WordPress, Unity

ML & Tools: ClinicalBERT, SapBERT, Gemini API, tidyverse, REST APIs, Git

Activities: Shad (full scholarship, 2026) | UWaterloo Quantum School (2025) | Basketball & Soccer Referee