Humzah Zahid Malik

⦿ Hamilton, ON ✉ hmalik66@uwo.ca 📞 +1 (306) 570-7797 🔗 humzahmalik-portfolio.vercel.app in ◯

Education

University of Western Ontario	**Sept 2022 – May 2026**
Bachelor of Science, Specialization in Computer Science	**CGPA: 3.3/4.0**

- Dean's Honour List (2024, 2025)

Skills

Programming Languages: Java, Python, C/C++, JavaScript, TypeScript, HTML, CSS, SQL, PHP
Frameworks/Libraries: React, Next.js, Node.js, FastAPI, Tailwind CSS, MediaPipe, Vis.js, Framer Motion
Databases: MongoDB, SupaBase, mySQL
Developer Tools: Git, VS Code, IntelliJ IDEA, Jira, Confluence, Vercel, Render

Projects

ConceptNet ↗ | React, Tailwind CSS, FastAPI, Supabase, OpenAI, Vis.js
- **Leveraged OpenAI** to extract key concepts, generate node summaries, and create multiple-choice quiz questions per topic.
- Built interactive, content-specific graphs using **Vis.js** with labelled edges and layout persistence.
- Designed **client-side quiz analytics** to track topic-level accuracy and enabled multiple-format exports for offline review.
- Integrated **Supabase** for global storage and **hash-based caching**, reducing OpenAI/LLM usage and back-end processing by ∼**70%**.

Focus Flow ↗ | HTML, CSS, JS, Node.js, MongoDB, Todoist API, Render
- Developed a productivity-focused web application featuring a custom study timer that helps users track task durations and manage their time effectively.
- Engineered a Node.js backend with MongoDB and Todoist API to manage and sync live tasks across devices.
- Implemented a dynamic "Stats" modal featuring **7-day focus trends** and top task analytics, driving a **25% increase** in average weekly study time during beta testing.

VoxWave ↗ | Python, MediaPipe, PyAutoGui, SpeechRecognition, Spotipy, AppleScript
- Developed a macOS menubar application enabling users to control system functions and Spotify playback through real-time hand gestures and voice commands.
- Integrated MediaPipe gesture recognition and SpeechRecognition for a mode-switch system to toggle gesture modes, achieving **90% accuracy**.
- Automated hands-free Spotify control via Spotipy for **500+ track navigations per day**, and leveraged AppleScript for seamless macOS system interaction.

Experience

Volleyball Stats Assistant	London, ON
Western Mustangs, Western University	Jan 2024 – Feb 2024

- Tracked and relayed real-time stats during home games, ensuring accuracy to assist coaches in making strategic adjustments.
- Collaborated closely with the stats team to ensure precise data collection, enhancing real-time insights and reliability for the home team.

Merchandiser	Regina, SK
The Brick	June 2021 – June 2022

- Managed customer pickups, delivery reports, and product assembly, ensuring efficient warehouse operations.
- Organized warehouse inventory independently, streamlining processes, and reducing wait times for a smoother customer pickup experience.