Shaivi Sahni

📞 647-871-0296 | ✉ Shaivisahni@gmail.com

in linkedin.com/in/shaivi-sahni/ | ⌂ github.com/shaivisahni | ⊕ shaivisahni.github.io/Portfolio/

EDUCATION

University Of Waterloo — Sept 2024 – June 2029

Bachelor of Applied Science (BASc) in Computer Engineering — *Waterloo, Ontario*
- University of Waterloo President's Scholarship of Distinction.

EXPERIENCE

AI Research & Strategy Consultant — February 2025 – April 2025

Ollama, FastAPI, Javascript, HTML, CSS, AI Research, Prompt Engineering — *Searchless Inc.*
- Analyzed AI in recruitment across 15+ industries to identify inefficiencies and ethical concerns.
- Engineered an AI tool with llama3 and FastAPI, tested on 200 job positions to generate tailored interview plans.
- Optimized prompt logic through iterative testing and stakeholder input to enhance relevance and role alignment.

Firmware Design Team Member — September 2024 – December 2024

C++, STM32, KiCad, GPS Systems, Gyroscopes, PCB Layout, Schematic Design — *Electrium Mobility*
- Engineered firmware for a bike computer to display distance and time using GPS and gyroscope data
- Improved motion tracking accuracy by integrating 3D gyroscope data with GPS and contributed to 12+ code reviews to ensure reliable performance

Software Developer — January 2023 – May 2023

C++, Firebase, OneSignal, Real-Time Databases, Mobile Application Development — *Technovation Girls*
- Developed a food waste tracking app using Python and Firebase to promote smarter food consumption.
- Placed in the Top 10% globally out of 7,000+ teams in the Technovation Girls competition.
- Implemented OneSignal for real-time alerts, tripling user re-engagement during testing.

Student Ambassador — Oct 2023 – May 2024

Mentorship, Outreach, Event Coordination, Public Speaking — *Technovation Girls*
- Recruited 10% of new participants, boosting project completion by 25% through outreach and weekly check-ins.
- Supported 8+ teams with feedback on pitches, code, and overall project execution.

TECHNICAL SKILLS

Programming Languages: C, C++, Python, Java, JavaScript, SQL, Bash, VHDL, HTML, CSS, C#
Tools & Technologies: FastAPI, Flask, Git, GitHub, Perforce, AutoCAD
Data & Cloud: Microsoft Azure, SQL Server, Database Design, Data Modeling, Data Analytics, Power BI
Systems & Architecture: Linux, Unix, Windows, Firmware, Embedded systems, Microcontrollers
Hardware & Graphics: Digital Systems, Logic Design (FSMs), Gaming Ecosystem

PROJECTS

Summus - Terms and Conditions Summarizer ⌂ | *JavaScript, Python, Ollama, FastAPI, Flask-CORS, REST*
- Built a Chrome extension to highlight and summarize key terms & conditions, increasing user review by 60%.
- Designed an interactive side panel with chatbot functionality, tab navigation, and animated visuals using JavaScript and HTML/CSS.
- Developed a backend utilizing Python, FAST API and Flask-CORS, validating REST endpoints using Postman
- Inferenced Ollama llama3 model for summaries and chatbot, and utilized Hugging Face Transformers to embed a contextual AI AGENT.

Population Growth Simulator ⌂ | *JavaScript, HTML, CSS, D3.js*
- Simulated growth for 50+ Canadian cities using census data and regional demographic rates.
- Animated population growth across 13 provinces using dynamic scaling visuals tied to real demographic trends.

Proximity-Based Accessibility Controller ⌂ | *C++, STM32, KiCad, PCB Layout, Schematic design*
- Developed an STM32 device with ultrasonic input to improve accessibility for users with motor impairments.
- Designed KiCad PCBs to trigger outputs based on proximity, with 90% accuracy up to 2m.

Plastic Pollution Platform Game | *Unity, C#, Preforce*
- Designed a 2D platformer with 4+ levels, collectibles, and environmental challenges to highlight plastic pollution.
- Implemented ad logic to direct all revenue toward environmental cleanup efforts.