

NATHAN PANNELL

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EDUCATION

University of Victoria | Victoria, BC

Sept 2021 – Present

B.Sc. (Computer Science with Business Minor; Expected graduation - May 2025)

– Award of Excellence Scholarship

Jun 2021

SKILLS

Programming Languages: Python, JavaScript, PostgreSQL, Java, HTML, CSS

Development Tools: Git, Linux, REST APIs, Visual Studio Code, React, Tailwind

Office 365 Tools: Power BI, Power Automate, Azure DevOps, Excel, Outlook

WORK EXPERIENCE

Global Talent Technology Co-Op

May 2024 – Present

Teck Resources Ltd, Vancouver, BC | International Mining & Exploration

Co-Op

- Supported recruiters worldwide with a **suite of 18 applications** to streamline processes and increase efficiency.
- Built a custom chat bot to automate support issue submission and resolution, **reducing ticket volumes by 20%**.
- Migrated VM-based automation script to **Azure Function Apps** to improve reliability and up-time.

Automation Developer Co-Op

May – Aug 2023

AMJ Campbell, Delta, BC | Nation-wide Logistics

Co-Op

- Created automations with REST APIs, VBA, and Excel to **improve efficiency by 10%** within the accounting department.
- Streamlined generation of billings and reports for accounts such as Wayfair and Crate & Barrel.
- Handled **accounts payable** and **payroll** management for Vancouver, Victoria, and Kelowna during a staff member's leave.

LEADERSHIP EXPERIENCE

Simulation Project Lead

Jan 2024 – Present

UVic AI, Victoria, BC | Student-run Educational Club

Volunteer

- Led AI-driven wildfire simulation, presented in Kingston, Ontario at the **Canadian Undergraduate Conference on AI**.
- **Hosted university-wide hackathon** with a custom submission and visualization pipeline, with sponsorship from IEEE.

PROJECTS

Wildfire Simulation with AI Agents | [GitHub](#)

- Created a cellular automata model of wildfire spread integrated with the **OpenAI Gymnasium API** for an AI Conference.
- Identified a novel wildfire simulation approach, including heuristic AI firefighter agents within the simulation itself.
- Collaborated with Reinforcement Learning and Domain Expert teams to ensure interoperability and accuracy.

Interactive Hackathon Visualizer | [GitHub](#)

- Developed a real-time visualization tool with **React** for presenting submissions at the UVic AI Club 2024 Hackathon.
- Designed a **base-81 encoding scheme** to effectively represent temporal-positional data as strings.
- Implemented a web interface to support hackathon participants in testing and debugging their AI agents.

Virtual Rubik's Cube | [GitHub](#) | [Website](#)

- Built an interactive 3D Rubik's cube with JavaScript and CSS rotations, responsive on mobile and desktop.