

Aly Sibak

Email: asibak@uoguelph.ca | Phone: 416-669-2080 | [GitHub](#) | [Linkedin](#) | [Portfolio](#)

EDUCATION

Bachelor of Computing (Honours), Computer Science (Co-op)

2023 – Present

University of Guelph | GPA: 85% | Dean's Honours List x3 | Area of Application: Project Management

TECHNICAL SKILLS

Languages: Python, TypeScript, JavaScript, Java, C#, SQL, Bash, HTML5, CSS3

Frameworks: React, Next.js, Node.js, Express, Flask, ASP.NET Core, SignalR, Entity Framework Core

AI & Data: Agentic LLM Pipelines, Google Gemini API, Prompt Engineering, Pandas, NumPy, scikit-learn

Cloud & Tools: AWS (Lambda, S3, CloudFormation, RDS, CloudWatch), Azure, Docker, PostgreSQL, MS SQL Server, Git, Jira, Auth0, JWT, CI/CD, Agile/Scrum

WORK EXPERIENCE

Source Protection Software Developer Co-op

May – September 2026

Township of Centre Wellington, Fergus, ON

- Developing **LSWIMS**, a cloud platform used by **Ontario municipalities** to manage Clean Water Act compliance, built with **C#, ASP.NET Core, and MS SQL Server**; built SQL spatial queries (ST_Intersects, ST_Within) automating risk zone scoring and threat detection that replaced a manual review process
- Built a **real-time cross-municipality chat system** from scratch using **SignalR, EF Core 8, and Azure SQL**, shipping DMs, group chats, typing indicators, read receipts, and real-time search
- Preserved existing schema integrity by architecting a **dual EF Core context** separating chat data from the user directory; integrated **Auth0 OpenIdConnect** with auto-registration on first login

Software Developer Co-op

May – December 2025

P&P Optica, Waterloo, ON

- Shipped features on a production **React + TypeScript + PostgreSQL** dashboard tracking 1,000+ daily incidents across **20+ enterprise facilities** (Tyson, Costco, Hormel) on 3 continents
- Improved AI output quality across **1,000+ daily queries** by building an **agentic LLM pipeline** integrating Google Gemini API across 15+ relational tables with an evaluation framework tracking consistency, latency, and accuracy
- Eliminated **200+ monthly support tickets** by diagnosing a stale-closure bug corrupting UI state and tracing an AWS S3 misconfiguration through CloudWatch logs, both fixed to root cause with zero regressions
- Cut processing time from **3 days to 5 minutes** by building **Python/Pandas ETL pipelines** with AWS CloudFormation and adding 15 PostgreSQL indexes, improving query performance by **70%**

Teaching Assistant — Web Design & Discrete Structures

Sep 2024 – Apr 2026

University of Guelph, Guelph, ON

- Supported **80+ students** through weekly office hours and a **250+ member** forum; built a troubleshooting guide library adopted by instructors to standardize feedback

TECHNICAL PROJECTS

Bystander — AI Emergency Triage App

March 2026

React, Node.js, Docker, Gemini 2.5 Flash, ElevenLabs, Web Speech API, Twilio, Presage rPPG SDK

- Won **Best Use of Presage Technologies** out of **692 participants** at HackCanada 2026 by building an agentic AI pipeline connecting Gemini scene analysis, contactless rPPG vitals, voice AI coaching, and Twilio SMS alerts end-to-end in **36 hours**

CarInfo — Car Discovery & Comparison Platform

2024 – Present

React 18, TypeScript, Vite, Express, Node.js, EPA & NHTSA APIs

- Built a full-stack platform on a **28,000-vehicle database** from EPA bulk data with NHTSA safety enrichment; designed a data provenance system tagging every field as EPA-verified, NHTSA-verified, or estimated
- Recovered **419 misclassified vehicle records** by tracing an import-order bug that mistagged plug-in hybrids as electric, correcting a valuation flaw that had undervalued affected cars by **60-70%**

PocketChange — Spare Change Donation App

2024 – Present

React, TypeScript, Node.js, Express, PostgreSQL, Plaid API, Stripe, JWT

- Built a fintech app integrating Plaid banking and Stripe payments across 40 charities; secured with JWT auth and rate limiting; optimized the database with **15 indexes** improving query speed by **60%**

LEADERSHIP & ACTIVITIES

- Tech Organizer, HackCanada 2027** (2026–Present): Building features on an open-source Next.js/Supabase platform: email campaign maker, points system, and customizable form builder
- Technical Director, MSA** (2026–Present): Rebuilt and maintain the MSA website; **Governor of Computing, CCMPSSC** (2026–Present): Elected national student representative on the Board of Governors
- SOCIS & Google Developer Student Club** (2023–Present): Led full-stack and AI workshops for 50+ participants