

Sam McClenaghan

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EDUCATION

University of Victoria

Bachelor of Science in Computer Science

Victoria, BC

Sept 2023 - April 2027

Bellerose Composite High School

International Baccalaureate Diploma Programme

Edmonton, AB

Aug. 2020 – June 2023

EXPERIENCE

Full Stack Developer, Intern

Leanpub

May 2025 - Dec. 2025

Victoria, BC

- Rebuilt Dropbox API integration to streamline file sync and publishing flows for authors using AWS S3 and background job queues.
- Implemented end-to-end background job progress tracking using Redis and a progress bar with reliable completion/failure handling for author-facing publishing workflows.

Application & APIs Developer, Intern

Trustscience

Jan. 2024 - Aug. 2024

Edmonton, AB

- Developed and deployed a production-grade file version-control system using HTTP2 and JSON Patch to enable delta storage, reducing AWS S3 costs by 15%.
- Engineered and delivered a real-time financial analytics platform using DynamoDB and Elasticsearch, improving query performance by 50%.

Frontend Developer, Intern

Trustscience

Nov. 2022 - Aug. 2023

Edmonton, AB

- Modernized front-end architecture with Vue 3 Composition API and serverless AWS Lambda services, accelerating partner onboarding by 45%.
- Spearheaded a global error handling system, unifying error state management and user notifications across the codebase.

PROJECTS

Course Scheduler | *Go, React, TypeScript, SQLite*

2025

- Built a full-stack course scheduling platform with Go/Chi REST API and React 19 frontend, featuring interactive weekly calendar with drag-and-drop, real-time enrollment data, and shareable schedules.
- Developed concurrent web scraper using goroutines to fetch course data from UVic's catalog and Banner systems, parsing HTML with custom tree-walking algorithms to extract section details and enrollment stats.
- Deployed containerized application on Fly.io with Caddy reverse proxy; implemented type-safe database layer using sqc with SQLite for course storage and schedule persistence.

Text Adventure | *Java, Design Patterns, OOP*

Oct 2023

- Architected event-driven game engine in Java with Factory and Command patterns, enabling modular command system with 8 player actions across 9 interconnected rooms.
- Implemented custom event system using functional interfaces to decouple command execution from state management, reducing coupling and enabling extensible features.
- Designed polymorphic domain model with abstract base classes for combat, inventory management, and graph-based navigation using HashMap data structures.

TECHNICAL SKILLS

Languages: React.js, Vue.js, Python, Go, C, Java, SQL, Ruby

Frameworks & Libraries: Ruby on Rails, Next.js, Remix, TailwindCSS, Bootstrap

Developer Tools: Git, Docker, Jira, AWS (Lambda, S3, DynamoDB)