

# Jordan Cowan

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## EDUCATION

### University of Victoria

*Bachelor of Software Engineering*

Specializations: Data Mining and Analysis, Artificial Intelligence, and Machine Learning  
Visual Computing (Vision/Graphics)

Victoria, BC, Canada

Aug. 2025

## WORK EXPERIENCE

### Software Application Development Engineer

May – December 2023

*Workday*

*Vancouver, BC*

- Developed simple user-facing features with XpressO language that aligned with object-oriented design principles.
- Wrote unit tests to ensure code correctness and participated in debugging and resolving user-reported issues.
- Participated in Agile scrum methodologies and collaborated with cross-functional teams to incorporate feedback and refine requirements for issues.
- Conducted code reviews and contributed to the development pipeline across environments to support CI/CD.
- Gained experience with XML-based data handling and integration technologies, and UML algorithmic approaches to improve system performance and scalability.

### Junior Technical Analyst & Consultant

May – August 2021

*Northworks IP*

*Victoria, BC*

- Drafted and analyzed software architectures and their technical implementations, component interaction, and cloud connection (with specific focus on electric vehicle charging systems and music streaming platforms).
- Performed market and technical analyses of the electric vehicle charging ecosystem and an assessment of technical gaps with the existing ecosystem and solutions.
- Performed data analyses of the electric vehicle ecosystem using patent landscaping tools. This included researching and creating search scopes and strings and presenting the findings of the data analysis to the leadership team.
- Created and drafted technical recommendations on applying artificial intelligence modelling to electric vehicle charging infrastructures and software.
- Co-inventor on filed patent “Electric Vehicle Fleet Charging and Energy Management System” (published as patent [US20250033517A1](#)).

## PROJECTS

### Astrolabe – AI-Powered Ocean Data Assistant

May 2025 – Present

*Docker, React/Next.js, TypeScript, C#, .NET, PostgreSQL*

- Developing a full-stack AI Assistant application for Ocean Networks Canada. Ongoing development with client.
- Designed and implemented RESTful APIs using C# and .NET Core, enabling secure, scalable interaction between the frontend, databases, and external APIs.
- Built backend logic to process and route user queries through a multi-stage NLP pipeline, integrating open-source LLMs for query parsing, data synthesis, and response generation.
- Developed and maintained modular service layers to support user authentication, session tracking, and personalized query history via PostgreSQL.
- Integrating third-party APIs (Oceans 3.0, Hugging Face, Google Embeddings) to support real-time oceanographic data retrieval and contextual document enrichment.
- Engineering a backend-admin interface to enable dynamic RAG knowledge base management with API endpoints.
- Designed the system architecture design, including data flow diagrams and component interaction models for end-to-end integration across dev/test/prod environments.
- Collaborating in an Agile team to support feature planning, issue triaging, and backend integration with the frontend React/Next.js application.

## TECHNICAL SKILLS

**Languages:** Java, Python, C/C#, SQL (Postgres), JavaScript, TypeScript, HTML/CSS, XpressO, XML, UML

**Frameworks:** React, Flask, Django, PyTorch, Spring, Node.js, Vue, JUnit, Maven, .NET

**Developer Tools:** Git, Docker, VS Code, IntelliJ, Eclipse