

SEBASTIEN GIRARD

Software Developer II · Full-Stack, High-Throughput Backends & AI Platform Engineering

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EXPERIENCE

Software Developer II

Cision Ltd.

📅 January 2024 – Present

📍 Ottawa, ON

- Built an **internal AI developer platform** with a **full-stack** React frontend and REST API backend, providing standardized editor configuration, company **MCP server** setup, multi-repo workspaces for **agentic coding**, and a **shared library** for prompts, instructions, and **agent** definitions. **Piloted** with **3 projects** before presenting to the **full R&D organization** for adoption.
- Helped mitigate a **multi-million dollar/year business risk** by joining a high-priority team to resolve a critical provider dependency. Designed multiple core services and integrated a new external **API** using **Java 21**, **Spring Boot**, and **Spring Kafka**. Validated performance at **200M+ messages/month**.
- Delivered real-time client insights by designing a **high-throughput analytics pipeline** processing **4,000 events/second** with **reactive programming**, **multithreading**, and **horizontal scaling**.
- Implemented and scaled a polarity scoring feature to **45M+ documents/day**. Used **Resilience4j**, circuit breakers, **batching** and **automatic retries** to ensure resiliency. Monitored the deployment across **22 production pipelines** with **Grafana**.
- Launched a **product review monitoring solution**, ingesting **hundreds of thousands of reviews daily** to surface actionable insights for client product teams. Designed an **orchestrator service** that manages jobs with a **finite state machine**.
- Saved **\$6K/month** by leading end-to-end delivery of a scalable **content archive with replay capability**, replacing a costly cloud-hosted solution. Delivered **2x production throughput**, **6+ month retention**, full unit/E2E/performance test coverage with **JUnit** and **Testcontainers** to **guarantee delivery**.

Software Engineer Intern

Motorola Solutions

📅 May – August 2023

📍 Gatineau, QC

- Validated a major software release upgrade procedure to ensure a flawless rollout across **3,000+ emergency call centers**.
- Hardened security across **150+ federal 9-1-1 sites** by automating Windows audit policy enforcement.
- Automated site configuration ingestion for field engineers in **C#**, handling existing field mapping and conflict resolution.

Full Stack Software Developer Intern

Spiria Digital Inc.

📅 May – September 2022

📍 Gatineau, QC

- Developed a custom **interactive dashboard** in **React**, **TypeScript**, and **MUI** for project tracking across management teams.
- Built end-to-end data browsing functionality using **React** and **TanStack Table**, with pagination, filtering, and ordering backed by a **REST API** with query parameter handling.

LEADERSHIP & IMPACT

Lead – Tech Trekker Forum

Cision Ltd.

📅 December 2024 – Present

- **Scaled the group by 35% to 51 members** across multiple R&D pillars by increasing engagement and broadening scope.
- Delivered **23 technology presentations** over the year, consistently driving awareness of emerging tools like **Langfuse** and **Google ADK/A2A**, **AG-UI**, **Speckit** and **BMAD**.
- Accelerated **company-wide AI adoption**: championed AI coding tooling like **OpenCode**, **MCP servers**, and **agent workflows**, now actively used by developers across teams.
- Authored a **framework for developing, testing, and deploying AI-generated code**.

Member → Avionics Lead → President
uOttawa Rocketry Team

📅 2019 – 2024

- Led a **30+ member multidisciplinary team** to a **successful flight** of a **3m tall rocket** with **8 kN of thrust**, reaching **Mach 1.7** and **23,000 ft**.
- As President, **oversaw all operations**: strategic planning, **project management**, **safety**, **people management**, legal and insurance compliance, budget, funding, and sponsor relations.
- Architected the **Primary Flight Computer** in **C++** with **safety-critical systems**, real-time event detection, and ground support systems for a **hybrid rocket engine**.

SKILLS

Languages: Java, Python, TypeScript, C, C++, C#, JavaScript, SQL

Backend: Spring Boot, Spring Cloud, Terraform, Microservices, Kafka, Docker, Kubernetes, GCP

Frontend: React, Next.js, MUI, TanStack Table

Databases: PostgreSQL, Elasticsearch, MongoDB
AI & ML: AI Agents, RAG, LangChain/LangGraph, MCP, Google ADK, Scikit-Learn

Practices: System Design, TDD, CI/CD, ArgoCD, Grafana, Prometheus, Git, Agile, Restful API

EDUCATION

BASc Software Engineering · University of Ottawa

Magna Cum Laude - **5 co-op terms** at uOttawa BioGenie, Cision (x2), Spiria Inc. & Motorola Solutions