

# Adin Schmidt

(289) 668-9681 | me@adinschmidt.com | linkedin.com/in/adinschmidt | github.com/adinschmidt

## Professional Summary

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Senior software engineer with 6+ years designing backend services, AI infrastructure, and developer tooling in Go, Python, TypeScript, Rust, C, and C++. Most recently architected agentic runtimes and LLM gateway infrastructure under production safety and reliability constraints; previously led architecture and delivery of a distributed anomaly detection system as product owner.

## Technical Skills

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**Languages:** Go, Python, TypeScript, Rust, C, C++

**AI Infrastructure:** LLM gateways, model orchestration, agentic runtimes, context engineering, provider abstraction

**Backend & Data:** REST APIs, NestJS, PostgreSQL, SQLite, Drizzle, embedded key-value stores (redb, Pebble), SSE streaming

**Frontend:** React, Next.js, Node.js, Qt, Tailwind CSS

**DevOps & Tooling:** Docker, GitLab CI, testing automation, developer tooling

## Experience

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### Software Developer (Contract) | Hypotenuse Labs

Jan. 2025 – Feb. 2026

*AI Tooling & Infrastructure*

- Architected an agentic Discord system under tight context, safety, and reliability constraints, supporting persistent memory, sandboxed execution, and multi-model routing across multiple provider APIs.
- Designed progressive tool disclosure and context assembly, gating tools by conversation state and user role while assembling model-ready prompts within token budgets from heterogeneous Discord inputs.
- Built hot-swappable model orchestration with file-based runtime configuration, allowing task-specific providers and system prompts to change without restarts as the model landscape evolved.
- Developed an OpenAI-compatible LLM reverse proxy with unified provider adapters, token quotas, SSE-backed priority queues, and request repair for inconsistent model APIs, routing over \$100k in token usage across the organization.
- Established a resilient execution model where provider failures, platform quirks, and API errors were surfaced to the agent for graceful recovery instead of propagated to users.

### Backend Software Developer | Sandvine

Jan. 2021 – Aug. 2024

*Lead Developer & Product Owner of Alert Engine*

- Owned architecture and delivery of a distributed anomaly detection engine applying statistical and ML-based classifiers to network telemetry, coordinating design decisions and task delegation across a cross-functional team.
- Built a React/Go internal tool that accelerated traffic simulation during anomaly-detection testing and validation.
- Led sprint ceremonies and daily coordination for a cross-functional team of eight, supporting three on-time major releases.
- Designed GitLab CI pipelines and repository bootstrap tooling, establishing a one-hour developer onboarding experience.
- Mentored junior developers through code reviews and coding standards while maintaining quality in a performance-critical codebase.
- Extended a performance-critical distributed packet-processing system in C to ingest additional protocol types without degrading throughput.
- Automated API data extraction and report normalization, replacing a multi-hour manual process with scripts delivering consolidated reports in seconds.

### Embedded Software Engineer (Co-op) | Tesla

Jan. 2020 – Apr. 2020

*Supercharger Team*

- Created embedded C code and CAN DBC definitions to send and receive multiplexed data between vehicles and charger components.
- Interpreted and diagnosed CAN bus signals from physical charge tests involving spoofing faults to ensure correct recovery behaviour and system robustness.

### Software Engineer (Co-op) | Inscopix

Sep. 2019 – Dec. 2019

*Sole Developer & Product Owner of data processing software*

- Implemented a three-dimensional video algorithm for detecting brain cells in neuroimaging data showcased at the Society for Neuroscience 2019, exposing the workflow through Python, MATLAB, and Qt interfaces.

### **Earlier Co-op Experience | Dejero, McAfee, SAP**

Jan. 2017 – Apr. 2019

*Embedded, automation, and QA tooling*

- Improved Dejero GateWay speed and reliability by adding multithreaded multi-server DNS requests with Boost and STL C++, plus command-line diagnostics on a custom Debian-based OS.
- Built Python/Selenium automation, scripting-language extensions, QA diagnostics, and Git migration support across McAfee and SAP products.

## **Projects**

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### **Civic Tech Waterloo Region | Volunteer Technical Lead & Mentor**

Nov. 2025 – Present

*Affordable Housing Portal*

- Lead development of a Next.js platform helping housing seekers find transparent, accessible listings from affordable housing providers.
- Design backend foundations for listing CRUD, admin management, saved listings, and saved searches using Drizzle and PostgreSQL.
- Establish agile workflows, code reviews, product management practices, and mentoring for junior developers and students.

### **MCP Servers | TypeScript, Bun, Model Context Protocol, JMAP, CalDAV, CardDAV**

- Built TypeScript MCP servers for Fastmail and Splitwise, exposing mail, calendar, contacts, and all 27 Splitwise API operations as agent-callable tools with documented authentication and client configuration.

## **Education**

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### **University of Waterloo**

Sep. 2015 – Aug. 2020

*Bachelor of Computer Science, Honours Co-op*

*Waterloo, ON*