Adin Schmidt

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Highlights

- Driven software developer with over 5 years of professional experience.
- Led the development of a big data anomaly detection application, guiding architectural decisions and task delegation.
- Experienced in RESTful backend development, data processing, embedded systems, and automation.

Technical Skills

Languages: Go, Python, TypeScript, Rust, C, C++
Specializations: REST API design, data processing, automation
Libraries and Tools: Tailwind CSS, Git, Docker, GitLab CI, Jira
Frameworks: React, Next.js, NestJS, Node.js
Databases: PostgreSQL, SQLite, Supabase

Experience

Civic Tech Waterloo Region
Nov. 2025 – Present

Technical Lead & Mentor (Volunteer)
Kitchener, ON

- Establish professional development standards, including agile workflows, code reviews, and product management practices, to improve project delivery and sustainability.
- Mentor junior developers and students on software design patterns, coding best practices, and the full software development lifecycle.
- Architect and develop the 'GO Train Group Pass' application using Next.js, React, NestJS, and Supabase to facilitate group travel coordination.
- Define technical roadmaps and development processes, utilizing industry experience to guide architecture and product management.

Independent Developer
Aug. 2024 – Present

Freelance / Independent Projects
Remote

- Developed a custom web application for a private client in Hugo to host static content.
- Engineered multiple full-stack applications to master Rust, TypeScript, and LLM integration patterns, resulting in the release of several open-source tools.

Backend Software Developer II | Sandvine
Jan. 2021 – Aug. 2024

Lead Developer & Product Owner of Alert Engine
Waterloo, ON

- Architected and implemented a big data anomaly detection application using machine learning techniques, while coordinating design decisions and task delegation within a large team.
- Created a full-stack internal tool in React/Go to expedite traffic simulation during testing.
- Led daily scrum meetings for a cross-functional team, contributing to successful on-time releases for three major product updates.
- Designed CI/CD pipelines and streamlined repository setup using GitLab CI, establishing a one-hour developer onboarding experience.
- Mentored junior developers, conducted code reviews, and enforced coding standards to maintain high-quality codebase.
- Expanded capabilities of a performance-critical distributed system written in C, enabling the ingestion of new data types.
- Replaced manual API data extraction and normalization (previously taking hours) with automated scripts, delivering consolidated reports to product managers in seconds.

Embedded Software Engineer (Co-op) | Tesla
Jan. 2020 – Apr. 2020

Supercharger Team
Palo Alto, CA

- Created and modified embedded C code and CAN DBC files to send and receive multiplexed data with the vehicle as well as within charger components.
- Interpreted and diagnosed CAN bus signals from physical charge tests involving spoofing faults to ensure correct recovery behaviour and system robustness.
- Researched integration of Software-in-Loop testing into the existing simulation framework to enable automated testing.

Software Engineer (Co-op) | Inscopix
Sep. 2019 – Dec. 2019

Sole Developer & Product Owner of data processing software
Palo Alto, CA

- Shipped multiple features under a tight deadline as product owner of a data processing application.
- Designed and implemented core neuroimaging data processing features for software that was showcased at the Society for Neuroscience 2019 conference.

- Implemented algorithm for detecting brain cells in three-dimensional video based on communications with data scientists, and accelerated workflow for customers by creating Python and Matlab APIs.
- Enhanced cross-platform UI with Qt components to enable use of the new algorithm.

C++ Developer (Co-op) | Dejero
Jan. 2019 – Apr. 2019

Blended connectivity product
Waterloo, ON

- Improved speed and reliability of the Dejero GateWay by adding multithreaded multi-server DNS requests with use of the Boost and STL C++ libraries.
- Streamlined modem troubleshooting by adding command-line functionality to monitoring tools on the GateWay's custom Debian-based OS.

Software Developer (Co-op) | McAfee
May 2018 – Aug. 2018

User interface team
Waterloo, ON

- Implemented and owned data driven automation suites using Python/Selenium to ensure user experience and crucial information delivery.
- Enhanced in-house scripting language with development of new commands and syntax highlighting.
- Supported transition from SVN to Git by providing tutorials and troubleshooting for team members.

Quality Assurance and Web Automation Developer (Co-op) | SAP
Jan. 2017 – Apr. 2017, Sep. 2017 – Dec. 2017

Test Automation
Waterloo, ON

- Developed automated tests with Python/Selenium and created SQL statements for SAP web applications.
- Installed and maintained Windows, Linux, and macOS testing servers for QA team.
- Supervised automated testing suites and diagnosed failures.
- Created Python, Bash, and Batch scripts to automate tasks and provide diagnostic insight.
- Debugged Java and C++ code and worked with RDBMS on Windows and Linux operating systems.
- Formed detailed reports of bugs in the SQL Anywhere software suite.

PROJECTS

Discord Bot | *TypeScript, Discord.js, LLM APIs*
2024 – Present

- Built a Discord bot featuring an agentic LLM architecture for automated community engagement.

File Optimization Utility | *Rust*
2024 – Present

- Developed a file optimization utility implementing lossless compression techniques to enable users to reclaim storage space with no tradeoffs.

Recall | *Rust, SQLite, Tesseract OCR, Nucleo, Clap*
Oct. 2023 – Present

- Developed a high-performance CLI tool in Rust to index and fuzzy search text content within local image collections.
- Integrated Tesseract OCR (via 'leptess') to extract text from various formats including PNG, JPEG, WEBP, and HEIC.
- Architected a local SQLite database to cache OCR results, enabling instant search queries without re-processing images.
- Implemented advanced fuzzy matching using the 'nucleo' engine to locate images based on imperfect text queries.

AI Translator | *JavaScript, Chrome Extension API, Tailwind CSS, LLM APIs*
Jan. 2024 – Present

- Built a Manifest V3 Chrome extension allowing users to translate web pages using customizable LLMs (OpenAI, Anthropic, Gemini).
- Engineered a DOM traversal algorithm to translate text nodes in-place, preserving HTML structure, links, and styling.
- Developed a configuration dashboard using Tailwind CSS for managing API keys, model selection, and custom endpoints.
- Implemented context menu integration for translating specific text selections via popups or processing entire pages in batches.

EDUCATION

University of Waterloo
Sep. 2015 – Aug. 2020

Bachelor of Computer Science, Honours Co-op
Waterloo, ON