

ROBERT FAIRLEY

Software Developer · Full-Stack · Systems Design

Hamilton, Ontario, Canada

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<https://robertfairley.com> · <https://github.com/robert-fairley>

PROFILE

10+ years building and shipping production software. Background spans high-throughput data systems, editorial publishing platforms, and independent product work. Rigorous about testing and reliability. Equally comfortable taking technical ownership on a complex problem or contributing as part of a larger team.

EXPERIENCE

Software Developer · Lleu Labs Inc. · Hamilton, ON

2024 to Present

<https://lleulabs.com>

Independent software practice, part-time, covering web and audio technology consultancy and R&D. Handles the full project lifecycle: requirements, architecture, development, deployment, and client communication.

- Various languages and technologies. Projects including web services and desktop and mobile applications
- Infrastructure on OVH
- Direct client communication and technical scoping

Software Developer · Orderful · Vancouver, BC (Remote)

2021 to 2024

Full-stack development on a high-throughput logistics communications platform built around EDI (Electronic Data Interchange), the standardized data format used across global supply chain and shipping operations. Built and maintained communication channel systems for integration with modern and legacy logistics infrastructure including AS2, VAN protocols.

- Built systems for high-volume, time-sensitive data exchange where errors have direct operational and financial consequences

- Rigorous testing culture: high unit and integration test coverage in an industry where data correctness is critical to operations
- Worked across the full stack on platform stability and integration
- Agile team: Sprint Planning, Daily Standups, Reviews, Retrospectives
- Code review, technical planning, and cross-functional collaboration
- AWS infrastructure

Software Developer · St. Joseph Communications / Rogers Media · Toronto, ON
2016 to 2021

Full-stack web development supporting editorial and design teams across major Canadian magazine titles (Maclean's, Chatelaine, FASHION, Today's Parent) and Rogers Radio. Built digital publishing pipelines, editorial tooling, web features, and workflow automation.

- **Apple News integration:** Designed and built a templating system for automated intake, reformatting, and publication of bi-weekly Maclean's issues on Apple News. Built a companion desktop editor for direct content editing and publication by editorial. Worked with Apple and a cross-functional development team on the full publishing pipeline.
- **Workflow automation:** Programmed and configured Enfocus Switch using XSLT, Python, and JavaScript to streamline publication workflows
- **Systems integration:** Tooling connecting Adobe Creative Suite, Apple News, CMS platforms, and production systems. Infrastructure on Digital Ocean, LAMP stack, and other backend environments
- Technical communication with creative directors and editorial leadership

OPEN SOURCE

apple-news-format · TypeScript Types Library
<https://github.com/Robert-Fairley/apple-news-format>
<https://npmjs.com/package/apple-news-format>

TypeScript types package for Apple News JSON format implementations. Published to NPM. Built during the Apple News pipeline work at St. Joseph Communications.

PL-10 · Self-Hosted Audio Streaming Platform
<https://github.com/burns-fm/pl-10>

Audio streaming starter kit. Node.js/TypeScript backend, web front-end, embedded audio player, and oscilloscope visualization via Web Audio API. Self-hosted, open source.

SELECTED PROJECTS

Clar · Audio Project Management and Master File Processing Tool

2026 to Present

<https://clar.lleulabs.com>

Desktop application for musicians, producers, audio researchers/hobbyists, and small record labels. Automates audio conversion via FFmpeg and handles metadata across multiple release formats. Technologies: Tauri, Rust, TypeScript, React, FFmpeg

Astarte · iOS DAW Controller

<https://astarte.burns.fm>

Wireless MIDI controller (MCU protocol over WiFi) for DAW control, built to fill a gap in available mobile form factors. Written in Swift, deployed to the App Store, in active personal use. Technologies: Xcode, Swift, Swift UI

TECHNICAL SKILLS

Programming and Development

TypeScript, JavaScript (ES6+), Node.js, NestJS, Python, React, Next.js, Remix, Vue, Swift/iOS, HTML5, CSS3, Tailwind CSS, shadcn/Radix UI, Shell, SQL (PostgreSQL, MySQL), MongoDB, Redis

Infrastructure and Deployment

AWS, OVH, Digital Ocean, LAMP stack, Linux server administration, CI/CD (Coolify and others), Docker, Self-hosted systems

Testing and Quality

Unit testing, integration testing, end-to-end testing, high-coverage test harnesses, code review

Workflow and Integration

Git, API integration, Agile/Scrum, Enfocus Switch, Adobe Creative Suite/AEM

Other

Accessible web development (ARIA, WCAG), Figma, Web Audio API, MIDI/MCU protocols

EDUCATION AND RECOGNITION

- **United Nations Online Volunteering**, Software development volunteer work with UN-aligned organizations, CMS platform development, 2013 to 2014
- **University of Toronto**, Bachelor of Arts (incomplete), Coursework in English Literature, Classics, Linguistics, and Art History
- **FACTOR Canada**, Artist Development Grant Recipient, 2022, Audio production