Eric Schaal

Senior Software Engineer | Technical Lead

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French/Canadian citizen · Authorized to work in Canada and the EU

Senior software engineer across embedded, mobile and backend systems. Led MY01 medical-app development from prototype through FDA clearance and into clinical use; built Rust firmware and experimentally validated research prototypes.

EXPERIENCE

Independent Software Developer · Eric Schaal E.I. Aug 2026 – Present

- Delivered OpenBarcode's React Native/Expo admission app: UI/UX, backend integration and app-store delivery. Supports invitation scanning, VIP guests and re-entry; client testing continues.

Software Innovation Lead · MY01 Mar 2025 – Jul 2026

- Built Rust/Embassy tourniquet-monitor firmware addressing temperature, battery and radio-signature constraints. Designed its React Native companion app, architecture and USB-C/NFC protocols so military medics could review usage history and share pressure data.
- Built a Python Slack agent with live IFS ERP/Oracle access, document retrieval and scheduled reminders, used daily by most employees.

Software Developer / Lead Software Developer · MY01 May 2019 – Mar 2025

Concurrent Chief Security Officer, 2021 – Mar 2025: information security program, internal audits and disaster recovery.

- Led MY01's React Native medical app from prototype through FDA clearance and into clinical use; the app earned FDA Breakthrough Device designation. Translated user needs into architecture and design outputs, and drove verification and validation under ISO 13485.
- Authored app/device mutual authentication, tested by third-party penetration testers; built charting and clock-synchronization modules in Swift, Kotlin and Java.
- Architected and deployed a Rust certificate service; developed Terraform provisioning, MQTT ingestion and scenario-based integration tests with simulated clients. Led a separate React/Next.js clinician-onboarding frontend.

Stathera · Two separate consulting contracts Jul 2024 – May 2025

- **Machine Learning for Clock Stability** (Jan – May 2025): developed deep-learning oscillator compensation for real-time drift correction; experimentally validated a prototype with <6 µs drift over 24 hours.
- **Chip Design Tools & Simulation** (Jul 2024 – Jan 2025): built bidirectional DXF/GDSII conversion, a React/COMSOL visualization app and the engineering team's four-server compute environment.

Software Development Intern · MY01 Jun 2017 – May 2019

Built the first mobile proof of concept and a study data-collection pipeline. Full-time summer 2017, then intermittent part-time work during studies.

SELECTED SKILLS

Systems: Rust, Embassy, Tokio, BLE, MQTT, Linux · **Applications:** TypeScript, React, React Native, Next.js, Python · **Delivery:** GCP, AWS, Docker, Kubernetes, Terraform, SQL, CI/CD

EDUCATION

McGill University · BSc in Computer Science 2015 – 2019

Projects, technical depth and further experience **schaal.dev ↗**