

Nate Levy

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Canadian and U.S. citizen. Authorized to work in both countries without sponsorship.

EDUCATION

McGill University

Sep 2026 – Expected 2030

BEng Mechanical Engineering

Montreal, QC

- Admitted with advanced standing, 18 transfer credits; AP Scholar with Distinction (5s in Calculus BC, Physics C: Mechanics, Statistics).
- First-year coursework includes: Design 1 (MECH 292), Computers in Engineering (COMP 208), Linear Algebra (MATH 133), Engineering Practice (FACC 150).

West Point Grey Academy

Secondary School Diploma, GPA 4.0, Vancouver, BC

Jun 2026

EXPERIENCE

Sentry Devices

Jun 2026 – Aug 2026

Software Engineering Intern

Vancouver, BC

- Built the operator application in React Native and TypeScript, used to commission Bluetooth tags, follow shipments through gateway handoffs and act on alerts.
- Built a fleet simulator that reproduced the data the devices report, so the ingest pipeline and the app were tested end to end before any hardware shipped.
- Reviewed the tag's hardware design and firmware behavior spec before firmware lock and raised 9 design defects; 2 of my fixes were adopted into the shipping design.
- Wrote the platform requirements against the live API and hardware, then tested each one on the running system and caught 14 defects before implementation.

SELECTED PROJECTS

Sonar Guard

Arduino UNO, C++, JavaScript, Web Serial

Sep 2026

- Built an ultrasonic turret that learns a room and flags anything new: interrupt-timed HC-SR04 on a 160° servo sweep, a per-slice statistical baseline from 4 learning sweeps, two-slice confirmation and target tracking, with a Web Serial dashboard and a live browser demo.
- Designed the firmware as a fully non-blocking loop (interrupt-timed echoes, timer-stepped servo, queued audio) and shared the UNO's limited hardware timers between the servo, tone() and IR input by using an interrupt-driven IR decoder.

Cadence

Swift, SwiftUI, Cloudflare Workers, Supabase, Stripe

Aug 2026

- Shipped a push-to-talk macOS dictation app: global CGEvent tap, AVAudioEngine capture at 16 kHz mono, on-device speech recognition, Developer ID-signed and Apple-notarized through a one-command release pipeline.
- Built the paid-plan backend (Cloudflare Worker, Supabase, Stripe) and locked it down before release so only the server can change a user's plan.

Scanning Rover

Arduino UNO, C++, L298N

Apr 2026

- Built an obstacle-avoiding rover (HC-SR04 on an SG90 servo, L298N differential drive) that turns in differential-PWM arcs to keep its tail clear of obstacles.

Prediction-Market Research

Python, pandas, SciPy, SQLite

Jun – Jul 2026

- Ran a market-model event study (OLS alpha and beta against SPY, 60-day estimation window) over 604 resolved markets and 16,731 signal-ETF pairs; rejected the primary hypothesis at 46.4% directional accuracy and published the results online.

LEADERSHIP & ACTIVITIES

McGill Formula Electric

Vehicle Dynamics and Chassis Teams, 2026–27 season

Sep 2026 – Present

SKILLS & INTERESTS

Engineering Tools: SolidWorks, MATLAB and Simulink (MathWorks Onramp certificates), OpenSCAD

Hardware: Arduino and embedded C++ (interrupts, hardware timers, non-blocking control), PWM motor control, servo and ultrasonic sensing, soldering and breadboard prototyping

Software & Data: Python (pandas, NumPy, SciPy), SQL, JavaScript, HTML, TypeScript, React Native, Swift, Git

Languages: English (native), French (beginner)

Interests: Drums, keyboards, and guitar (jazz and R&B); soccer, tennis, baseball