

Paul Levental

☎ 778-674-4050 | ✉ paul.levental@gmail.com | [in linkedin.com/in/paul-levental](https://www.linkedin.com/in/paul-levental) | github.com/paullevental

EDUCATION

University of British Columbia

Bachelor of Science (Mathematics)

Vancouver, Canada

Sep. 2023 – April 2028

Relevant Coursework: Data Structures and Algorithms, Introduction to Computer Systems, Software Construction, Introduction to Relational Databases, Introduction to Computer Networking, Machine Learning and Data Mining, Applied Machine Learning

TECHNICAL PROJECTS

FocusEye | [\(Project Link\)](#)

Feb 2026 – Present

Python, Java, React, TypeScript, MediaPipe, Spring Boot, PyTorch

- Built FocusEye, a deep-learning application to test whether self-reported study time actually tracks attention, by classifying attention second-by-second from webcam video into deep, partial, and absent states.
- Designed and developed a React + TypeScript dashboard on a Java Spring Boot REST API with PostgreSQL persistence, so focus sessions accumulate into a comparable history instead of vanishing when the tab closes.
- Trained a 2-layer PyTorch LSTM over sequences of MediaPipe Face Mesh landmarks rather than independent frames, so a blink reads differently from sustained eye closure, then exported to ONNX to run in-browser via ONNX Runtime Web with no webcam data leaving the device.
- Automated CI/CD to Azure Container Apps through a GitHub Actions pipeline with a multi-stage Docker build, gated on 100% JUnit coverage so no merge reaches production without passing the suite.

Mini Kafka | [\(Project Link\)](#)

Aug 2026 – Present

Java, Python, Maven, JUnit

- Built a distributed Java message broker whose virtual-thread concurrency model scaled 10,000 TCP connections, up from 2,072 with one OS thread per connection.
- Cut record lookup from a full 64 MB segment scan to a binary search plus a bounded 4 KB read, by indexing one 8-byte entry per 4 KB of log.
- Added data-integrity checks that reject corrupted records before a consumer sees them, verified by unit tests flipping all 30 body bytes and catching every one using a CRC32 checksum.

Course Load Evaluator | [\(Project Link\)](#)

Nov 2025 – Jan 2026

Python, React, TypeScript, FastAPI

- Developed a React + TypeScript dashboard for a full-stack course-load risk estimator that scores a term before registration closes, served by a FastAPI backend with request validation and structured error responses.
- Reached 0.65 average precision on held-out data with a tuned scikit-learn Random Forest, chosen over a Logistic Regression baseline that missed interactions between course count and per-course workload.

TECHNICAL EXPERIENCE

Front-end Web Developer (Volunteering)

[Organization Website](#) | Sept 2022 – Dec 2022

MyFly Financial

Vancouver, British Columbia

- Designed and built a multi-module course site on a modular React + TypeScript architecture with consistent navigation and responsive layouts.
- Built a responsive landing page for 3 online conferences, working with a cross-functional team to streamline attendee sign-up.

TECHNICAL SKILLS

Languages: Python, Java, TypeScript, SQL, JavaScript, HTML/CSS, C++, R

Developer Tools: Git, Maven, Claude Code, Linux, Jupyter Notebook, RStudio, VS Code

Libraries/Frameworks: scikit-learn, PyTorch, Spring Boot, React, FastAPI, NumPy, Next.js, Django

Cloud and DevOps: Docker, GitHub Actions, AWS, Azure

Testing: JUnit, GitHub Actions CI