Aaron Ye

aaronye1001@gmail.com | aaronye.dev | github.com/a4ye | linkedin.com/in/aaron–ye

Education

University of Waterloo — Waterloo, ON
Bachelor of Computer Science — *Expected Apr 2029*

- **GPA**: 3.95/4.0 (92%)
- **Awards**: 14x hackathon winner with $9,400+ in prizes

Experience

Software Engineering Intern — Jan 2027 – Apr 2027
Imbue | *Incoming Winter 2027* — *San Francisco, CA, United States*

Software Engineering Intern — May 2026 – Aug 2026
Otto Labs | *Python, TypeScript, FastAPI, React, PostgreSQL, Temporal, AWS* — *Toronto, ON, Canada*

- Mirrored ~**9M** PDFs (**19+ TB**) to AWS S3 via fault-tolerant Temporal workflows and incremental syncs
- Achieved ~**62%** supplementary-material recall across diverse publisher platforms via authenticated, publisher-specific retrieval workflows
- Resolved critical findings across **8** evaluated attack classes by hardening sandboxed AI agents against prompt injection and data exfiltration

Technical Lead — Sep 2024 – Apr 2025
EurekaHACKS | *TypeScript, Next.js, React, PostgreSQL, AWS, TailwindCSS* — *Toronto, ON, Canada*

- Architected and operated a Next.js portal used by **400+** applicants across **32,000+** page views, backed by PostgreSQL and type-safe sqlc queries
- Secured password and OAuth flows with Argon2, SHA-256-hashed session tokens, and expiring verification links delivered via AWS SES
- Reduced review time for **300+** submissions by building SQL-backed search, pagination, and inline decisions
- Cut average attendee processing from ~**11 to ~2 seconds** using AES-128-GCM-encrypted QR identities, eligibility checks, and duplicate-scan protection

Software Engineer — Mar 2023 – Mar 2024
Freelance | *TypeScript, discord.js, Node.js, Docker, MySQL, SQLite* — *Remote, Canada*

- Processed **600+** cryptocurrency tips for **3,100+** users via Node.js bots integrated with blockchain REST APIs
- Sustained ~**99.7% uptime** across multi-month deployments using Docker, persistent MySQL/SQLite storage, structured logs, and crash recovery

Technical Projects

Fern | *TypeScript, Next.js, PostgreSQL, Google Cloud APIs, Gemini, Gmail API*

- Built a job tracker that accelerated job logging by ~**60x**, from ~60 seconds to ~1 second, by auto-extracting data from pasted links
- Engineered undo/redo for 2,000-record bulk edits with **80%+** smaller history payloads via sparse deltas and gzip
- Collapsed up to **10,000** CSV/XLSX row inserts into one PostgreSQL statement with automatic mapping, validation, and deduplication
- Cut Gemini prompts **20x** and match time **14x** at **99.7%** recall via a company-name trie over **1,200+** employers
- Reduced inbox-sync latency **20x** and false negatives from **38% to 14%** by replacing Gemini with typed Jev judgments

Dime Defender (Hack the North 2024 Finalist) | *TypeScript, Svelte, Plasmo*

- Achieved ~**97% cart-field accuracy** across 61+ Shopify/Amazon test checkouts using platform-specific DOM parsers
- Generated complete two-agent debates in ~**2.4 seconds** by routing live cart/budget context through AWS API Gateway, AWS Lambda, and Voiceflow

Technical Skills

Languages: Java, Python, Go, C++, SQL, JavaScript, TypeScript
Frameworks: React, Next.js, SvelteKit/Svelte, Flask, FastAPI
Technologies: Git, Docker, Linux, PostgreSQL, MySQL, AWS, Node.js, Temporal, Redis