Geoffrey Lee

g42lee@uwaterloo.ca | linkedin.com/in/lgeoff31 | github.com/lgeoff31 | geoffreylee.me

Education

University of Waterloo, Bachelor of Software Engineering April 2028

- **Major GPA:** 3.85 / 4.0
- **Courses:** Advanced Algorithms, Data Structures, OS, Databases, Compilers, Signals & Systems, Statistics
- **Competitive Programming**: Globally ranked <1% (2307/12M+ users)

Skills

- **Languages:** Python, C++, C, Java, TS/JS, Bash, SQL
- **Technologies:** Kubernetes, Docker, gRPC, Kafka, Redis, CockroachDB, PostgreSQL, Temporal, GraphQL, NumPy, FastAPI, Rails, NodeJS, NextJS, React, Git

Experience

Walleye Capital Incoming
Software Engineer Intern New York, New York

- Incoming Software Engineer Intern developing Quantitative Strategies.

Atoms May – Aug 2026
Software Engineer Intern New York, New York

- Developed core payment infrastructure using **Java**, leveraging gRPC, Temporal workflows, and Kafka event streams, processing **$500M** in transaction volume. (Featured by the CTO)
- Reduced payout times by **30x (10 hours to 20 minutes)** for stalled merchants via a **checkpoint-jump optimization** that skips over transaction-free gaps, restoring settlement for **200+** blocked merchants.
- Built infrastructure for **org-level payouts** by creating a Temporal workflow that queries & aggregates monetary transactions into Stripe payout statements, with retry handling, auditing, tax reporting, and observability.

Biztrip AI Sep – Dec 2025
Software Engineer Intern San Francisco, California

- Implemented a sliding-window **min-heap algorithm** with lazy deletion to identify cheaper flight rebooking options within a 3-hour window, improving matching from **O(NK)** to **O(NlogK)**, cutting latency by **20ms**.
- Developed a **proactive AI travel agent** that parses relevant calendar signals to orchestrate flight & hotel itineraries, saving **500h+ annually** in corporate travel coordination.

Shopify Jan – Apr 2025
Software Engineer Intern Toronto, ON

- Shipped a checkout autofill feature that pre-populates tokenized payment and address data, **cutting ~90 seconds** off checkout times, lifting conversion rates by **4.8%**; built using Rails and GraphQL.
- Ran **A/B experiments** on an added onboarding step highlighting subscription plans within a 4-step signup flow, boosting early-stage conversion by **4%** (projected **$8M+** in ARR); built using React and TypeScript.

RideCo May – Aug 2024
Software Engineer Intern Waterloo, ON

- Engineered a **real-time vehicle-tracking** platform processing millions of daily GPS pings with optimized linear interpolation/debouncing algorithms, adopted by 100% of the dispatch operations team.
- Shipped a ride-replay visualization tool to accelerate incident investigations, cutting **$300K** in costs across **850 incidents** and saving **2,300h+** annually.

Projects

- **Outreachyr:** A platform to help students connect with university recruiters; **10K+ impressions, 120 users**.
- **Bisect:** An AI tool that isolates regressions via binary search and auto-generates patch PRs.
- **Echo Cache:** A distributed in-memory cache in **C++** with scalability and fault tolerance.

Hobbies & Interests

Marathons · Math/Computing Contests · Chess · Poker · Magic