

# STONE LIU

617-792-6757 | qwantumstone{at}gmail{dot}com | linkedin/stone-liu | github.com/stoneliuCS

## EDUCATION

### Northeastern University

Boston, Massachusetts

Candidate for Honors Bachelor of Science in Computer Science and Mathematics

Expected May 2026

- **GPA:** 3.78 / 4.00
- **Awards:** Northeastern Honors Program, Deans List

## TECHNICAL SKILLS

**Languages:** TypeScript/JavaScript, Python, Java, C, C++, SQL, Bash

**Technologies:** Nvim/Vim, Docker, Git, AWS S3 & Lambda, Nix

**Frameworks/Libraries:** React.js, Polars, Pyspark, Pandas, React-Native, Next.js, Vue.js, Nuxt.js

## EXPERIENCE

### Software Engineer Co-Op

January 2025 – Present

Morse Corporation

Cambridge, MA

- Built core infrastructure for data analysis pipelines aimed at algorithmic testing and evaluation of object detection models.
- Designed a scalable test harness with **Apache Spark**, supporting parallel data processing on **100 million+ metrics** giving team members insights into model performance.
- Deployed model runners and inference processing pipelines with **OpenCV**, automating metrics for multiple vendors and reducing metric turnaround time by over **50%**.

### Technical Lead

September 2024 – April 2025

Generate Product Development Studio

Boston, MA

- Led a team of 7 engineers, designing containerized **RESTful** web server applications through the OpenAPI specification.
- Implemented a web server that supported multimedia compressing/serving through **AWS S3** and scheduled push notifications using **AWS Lambda**.
- Enabled real-time notification services through **Supabase** database subscribers and designed type-safe database transactions using **Drizzle-ORM**.

### Software Engineer Co-Op

January 2024 – August 2024

Spill Center

Hudson, MA

- Designed a web application for cargo tank owners and operators using **Nuxt.js** and **MongoDB**, enabling customers to view detailed reports on **800,000+** cargo tanks.
- Created reusable dashboard components written with **Vue.js**, enabling over **3000+** contractors to access detailed incident reports on spills.
- Monitored **10,000+** incidents within alert groups by implementing a geospatial alert service through **PostGIS** spatial queries.

## PROJECTS

**Dearly** | TypeScript, React-Native, Docker, AWS S3/Lambda, PostgreSQL

- Dearly is a private family-sharing app bridging generational gaps and makes staying connected easier and more meaningful.
- Deployed CI/CD pipelines through **Github Actions**, automating over **500+** integration tests written with **Jest** and containerized deployments using **Docker**.
- Cached API requests using **TanStack-Query** and compressed image/audio content through **Sharp.js**, leading to an **80%** decrease in API calls and **50%** faster loading times.

**Fluid-OAS** | TypeScript

- *Fluid-OAS* is a declarative domain specific language expressing type-safe HTTP APIs through the OpenAPI specification.
- Created a fluent, object-oriented API allowing developers to repeatedly chain together methods by using *mixins*, enabling for more maintainable OpenAPI specifications.
- Maintained backwards compatibility between all OpenAPIv3 specifications through interface segregation, providing support for more than **2000+** developers on npm.