STONE LIU

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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, Go, Java, C++, C
Technologies: Nvim/Vim, Docker, Git, GDB & LLDB, AWS S3 & Lambda
Frameworks/Libraries: React.js, React-Native, Apache Spark & Maven, Vue.js

EXPERIENCE

Software Engineer Co-Op   January 2025 – Present
Morse Corporation   *Cambridge, MA*
- Implemented a novel, F-score based tracking metric for object detection models in **C++**, giving stakeholders new insights into model performance.
- Designed a scalable test harness with **Apache Spark**, supporting parallel data processing on **100 million+ metrics**, increasing pipeline reliability.
- Deployed containerized model runners and inference processing pipelines using **OpenCV** and **Polars**, accelerating metric turnaround time by over **50%**.

Technical Lead   September 2024 – April 2025
Generate Product Development Studio   *Boston, MA*
- Led a team of 7 software 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 using **Nuxt.js** and **MongoDB**, enabling customers to view detailed reports on **800,000+** cargo tanks.
- Created reusable dashboard components written in **Vue.js**, allowing **3000+** contractors access to detailed spill incident reports.
- 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.