

# Eugene Lu

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## Education

### University of Waterloo

#### Bachelor of Computer Engineering

Waterloo, ON

Sep 2017 - Jun 2023 (Expected)

- 3.03 Term GPA
- Strong understanding of data structures and algorithms, object-oriented programming, compilers, operating systems, relational databases, distributed systems, and intro to AI

## Experience

### Semios

#### Software Engineer Intern

Burnaby, BC

Sep 2022 - Present

- Taking ownership of key features in an IoT network of 2+ million devices used to deliver agriculture as a service
- Rendering visualizations and insights to find data-driven solutions in farming using **TypeScript** and **React**

### Alida

#### Software Engineer Intern

Toronto, ON (Remote)

Jan 2022 - Apr 2022

- Led the design and implementation of single sign-on in Alida's mobile app using **OAuth 2.0** security protocols
- Collaborated with product managers and UX designers to build modern mobile views using **TypeScript**, **Redux**, and **React Native**, fulfilling customer requirements
- Refactored frontend codebase by properly managing global states and writing reusable components, resulting in modular and maintainable code
- Fixed performance issues of testing pipeline by migrating to **GitHub Actions**, lowering false-negatives by 80%

### Alida

#### Software Engineer Intern

Toronto, ON (Remote)

Sep 2020 - Aug 2021

- Architected highly available APIs that interacted with other microservices using **Go**, **Postgres**, and **Redis**
- Monitored crashes in production and fixed the associated bugs, reducing customer churn rate by 15%
- Optimized frequently-called API endpoints by caching reusable data, lowering response times by 92%

### University of Waterloo

#### Web Application Developer Intern

Waterloo, ON

Jan 2020 - Apr 2020

- Implemented various features on Odyssey, a user-facing web app using **Python**, **Postgres**, and **JavaScript**
- Built a high impact view for course timetables that 40,000+ students use to schedule classes each term
- Lowered response times of certain web views by 87% by optimizing **SQL** queries and paginating the results

### Pelmorex Media

#### Quality Assurance Developer Intern

Oakville, ON

Jan 2018 - Apr 2018

- Implemented automated UI tests in Pelmorex's iOS App using **Swift** and **XCTest**, improving test coverage by 20%

## Projects

### DayBird (Capstone Project)

#### Go, Python, MongoDB, React, Redux, TypeScript, Node

- Designed a calendar web app that leveraged **genetic algorithms** and **Naive Bayes** classification to generate optimized schedules tailored towards user preferences

### SC2Ladder

#### Python, Django, HTML, CSS, Redis, Postgres, Heroku

sc2ladder.herokuapp.com

- Built a search engine web app for StarCraft II players that provided detailed insights and had 10,000+ total visits

## Skills

- **Languages:** Go, Python, SQL, JavaScript, TypeScript, C++, C, Java, HTML, CSS
- **Technologies:** React, Redux, NodeJS, Django, Flask, Postgres, MySQL, Redis, MongoDB, Git, AWS, Agile