

## SKILLS

**Fluent** with C++, C, Python, Git, ReactJS, CSS  
**Proficient** in Scheme, JavaScript, Scikit-Learn, Tensorflow, SQL, R  
**Familiar** with Django, NodeJS

## PROJECTS

### Mappify | A Maps Chrome Extension

*Current*

- Scraped *MLH.io* to retrieve Hackathon information in GeoJson format using **Cheerio**
- Utilized **Javascript** and employed **Mapbox API's Geocoding** functionality to mark Hackathon locations on a map
- Adapted the UI of *MLH.io* to integrate the map and assist students to find Hackathons close enough to bus

### Vim | Text Editor

*Dec 2018*

- Implemented a **C++** clone of the text editor Vim following the **SOLID Design Principals** and various design patterns
- Utilized the **ncurses** terminal graphics library as part of View in the **MVC** framework
- Actualized a regex search function that leveraged recursive descent parsing and an object-oriented approach

### Avacancy | HackPrinceton

*Nov 2018*

- Employed **Computer Vision** to identify vacant parking spots based on security camera footage then directed drivers
- Incorporated Object Recognition on cars and image transformations from camera POV to aerial perspective

### Journal of Wine | Regression and Classification of Wine

*Jun 2018*

- Used **Python** to perform feature selection and constructed regression models on ratings of red and white wine
- Analyzed data using **Seaborn** after undersampling and implemented a classification model with 93% accuracy

### SIMP, A-PRIMP, PRIMP | Interpreter, Assembler & Compiler

*Mar 2018*

- Implemented an **assembler** from A-PRIMP to PRIMP and a **compiler** from SIMP to A-PRIMP by manipulating stack, frame, and program pointers in **Scheme**
- Constructed a **parser** that converts binary expressions from infix to prefix through lexical analyzations, tokenization and implementing an Abstract Syntax Tree

## ACTIVITIES

### Actuarial Science Club | Event Coordinator

*Jan 2018 – Apr 2018*

- Organized and directed weekly events with tasks including meeting up with a representative from the largest actuarial association in NA, *SOA*, to collaboratively formalize the details of SOA Outreach Day
- Actualized current connections in London Life with previous ones to arrange a Trivia Day event

### Math Club | Co-President

*Sep 2016 – Jun 2017*

- Created weekly problem sets aimed to isolate concepts and led discussions to promote critical thinking
- Presented key ideas to students which accelerated their learning and improved the club's national ranking
- Coached juniors to achieve better scores on contests, ranking the club first in Canada on Fermat 2016

## EDUCATION

### University of Waterloo | Candidate for Double Degree in Computer Science, Pure Math, 2022

Average **89%**, Dean's Honours List  
Mathematics Scholarship, President's Scholarship

## WORK EXPERIENCE

### Actuarial Student – Valuations | London Life Insurance Company

*May 2018 – Aug 2018*

- Leveraged **AXIS** modelling to project future insurance claims and determined the reserve amount that was needed
- Improved projection accuracy by modelling male and female policyholders discretely as part of Mortality Improvement
- Summarized policyholder information to analyze their behaviours using **SQL** scripts

## AWARDS

2017 • Ranked top 2% in the Euclid Mathematics Contest among all competitors

2016 • Scored in the top 2% of COMC2016 and ranked top 10 among grade 12s in British Columbia  
• Tied for 25<sup>th</sup> place in Canada on AMC 12A and led Moscrop Secondary to be ranked 10<sup>th</sup> in Canada