

## EDUCATION

### Bachelor of Science, Honours Specialization Computer Science

Western University

09/2016 - 08/2020

Dean's Honour List (09/2019 - 09/2020)

*Thesis:*

- Creating a convolutional graph neural network to analyze which parameters best predict the spreading of COVID-19 and other pandemics.
- As part of a team, we will be looking at the data obtained and try to develop a contact tracing model for detecting and controlling outbreaks on graphs.

## WORK EXPERIENCE

### Software Developer

Edsby

08/2020 - Present

Toronto

Education technology company

*Achievements/Tasks*

- Designing and further developing a custom RESTful API to ensure a highly scalable, simple, and easily modifiable system that securely integrates data accessibility to client services.
- Responsible for defining, developing, and evolving software in a fast paced and agile development environment.
- Developing and maintaining server-side web application logic and framework using python to integrate with the front end application.

### Web Application Developer (Intern)

Kinaxis

05/2019 - 09/2019

Ottawa

Supply chain management and logistics company

*Achievements/Tasks*

- Used React TypeScript to build and design components used in RapidResponse, a web application designed to manage and optimize supply chains.
- Fixed various logic and UI bugs.
- Used jest to create unit tests for the React components created.

### Security Intelligence Operations (Intern)

The Bank of Canada

06/2018 - 09/2018

Ottawa

*Achievements/Tasks*

- Developed two web applications; an external contacts database, and an application to streamline the process of collecting and sorting external data used to develop trends on incidents that would affect Central Banks.
- Wrote reports on specific technological developments affecting the banking sector; Primary audience was to those at the Bank of Canada and other central banks not in tech related positions.

### Business Representative (Intern)

Great People Inside

07/2017 - 08/2018

Ottawa

Talent Management Company

*Achievements/Tasks*

- Collected contact information of managers at local companies, sent emails to sell a fully customizable assessment and Talent Management solution.

## TECHNICAL SKILLS

Python

Flask

Java

UNIX

C

C++

Shell Scripting

HTML

CSS

REST API Development

Javascript

React

Typescript

Git

Firebase

Flutter

## PERSONAL PROJECTS

### Efficient Frontier (04/2018 - 07/2018)

- Built a script which generates the efficient frontier for an inputted portfolio of stock tickers.

### Pub-Sub System (01/2019 - 04/2019)

- Developed a publisher-subscriber system as part of a team.
- Learned about good developing practices, making use of software design principles/patterns.

### UC Berkeley AI Pacman Project (10/2019 - 12/2019)

- This project is a Berkeley University assignment where I implemented depth-first, breadth-first, uniform cost, and A\* search algorithms in Python.
- Classic Pacman is modeled as both an adversarial and a stochastic search problem. I tried to implement multiagent minimax and expectimax algorithms, as well as designing evaluation functions.

### Turn Based Strategy Game (09/2019 - 01/2020)

- Developed a turn based strategy game as part of a team.
- Learned about the principles and design patterns of object-oriented design using C++.

### Algorithm Trading System (05/2020)

- Currently building an algorithmic trading bot in python that runs on the Google Cloud Platform.
- This bot will make calls to the Alpaca API to pull data on stocks to build and trade with real-time market data.

### Convolutional Neural Network (05/2020 - 06/2020)

- Developed a convolutional neural network using pytorch to perform image recognition.
- Trained the neural network on the Dogs vs Cats Kaggle dataset.
- Learned about the importance of measuring performance of the model, calculating loss, and taking accuracy both from in-sample and out-of-sample.

### Long Distance Ride Sharing App (06/2020 - Present)

- Currently developing a long distance ride sharing app in Flutter.
- This application leverages the firebase real-time database, the Google Maps API, and the Stripe API.

## INTERESTS

Finance

Machine Learning

Baseball

Ultimate Frisbee

Guitar

Music

Best Buddies Club at Western University