


# luisa rojas

computer scientist

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## education

### MSc in Computer Science

University of Ontario Institute of Technology

September 2017 – August 2020

### BSc in Computer Science (Hons.)

University of Ontario Institute of Technology

September 2013 – April 2017

## experience

### Teaching Assistant

University of Ontario Institute of Technology

January 2017 – December 2019

Provided academic support to junior and senior Computer Science students in the following courses:

- Programming Workshop (C++)
- Software Quality Assurance (C++, Java)
- Web Development (JavaScript, MongoDB)
- Survey of Computer Science Research Topics & Methods

### System Administrator

University of Ontario Institute of Technology

May 2014 – December 2014

- Designed and maintained the International Office website.
- Oversaw the international students' University Health Plan (UHIP) program, which covers 25% of the student population.
- Aided in the planning and marketing processes for various events held for international and exchange students.

## skills

### Programming

C, C++, Java, Python, JavaScript

### Databases

PostgreSQL, NoSQL, MongoDB, Neo4J

### Web Development

jQuery, NodeJS, Flask, HTML, CSS, REST

### DevOps

Git, GitHub, Docker

### Machine Learning

Keras, TensorFlow

## leadership

### Director of Graduate Studies and Hiring Committee Member

Board of Directors

Ontario Tech Student Union

### Computer Science Program Representative

Ontario Tech Graduate Student Council

### Vice-Chair and Senior Mentor

Ontario Tech ACM-W Student Chapter

### Founding Chair

Ontario Tech ACM-W Student Chapter

### Mentor and Judge

Local Hack Day by GitHub and MLH

### Panelist and Logistics Volunteer

Go Code Girl 2019

Ontario Network of Women in Engineering

## projects

### CFLASH: Concurrency Faults Localized Automatically using Search Heuristics

April 2018 – April 2020

Automatic fault localization tool for multithreaded Java programs. CFLASH utilizes a combination of noise-based code injection and a heuristic search algorithm to identify potentially faulty code sections containing concurrency bugs.

Docker

Java

Python

TXL

### Mentor-Mentee Matching System 🧑🏫

February 2018 – April 2018

Web-based platform for a matching system between mentors and mentees for the Peer Mentorship Program at Ontario Tech. The system matches them by faculty according to their compatibility using a set of survey answers from both parties. The output is a set of formed peer-mentoring group.

CSS

Docker

HTML

JavaScript

Neo4J

PostgreSQL

Python

### Distracted Driver Detection 🧑🏻

December 2017

Trained a deep Convoluted Neural Network (CNN) to predict with 99.4% accuracy whether an individual is driving distracted as well as what type of distraction is involved. The VGG16 CNN model, pre-trained on ImageNet, is coupled with a retrained fully connected model and tested on previously unseen distracted driver images.

Keras

Jupyter Notebooks

Python

TensorFlow

### dynOBD 🧑🏻

October 2016 – December 2016

Mobile application that records and keeps track of statistics about any given car trip. It uses a Bluetooth connection to the vehicle in order to provide trip information and other live data visualizations to the user such as current speed and throttle. We used a local SQL database and other APIs, like Google Maps and OBDII Java.

Android Studio

Java