luisa rojas

computer scientist

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education

MSc in Computer Science
University of Ontario Institute of Technology
September 2017 – May 2020 *(expected)*

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 for 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

Databases
PostgreSQL, NoSQL, MongoDB, Neo4J

Web Development
jQuery, NodeJS, Flask, HTML, CSS, Bootstrap

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 distracted-driving 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