LUISA ROJAS GARCIA

COMPUTER SCIENTIST

hello@luisarojas.com
+1 (416) 856 3054
luisarojas.com
github.com/luisarojas

EDUCATION

Master's (MSc. Computer Science) September 2017 – *August 2019 (expected)*
University of Ontario Institute of Technology
Thesis research area: Automatic fault localization in multithreaded programs.

Bachelor (BSc. Computer Science) September 2013 – April 2017
University of Ontario Institute of Technology

SKILLS

- C, C++
- HTML, CSS
- Machine Learning (Keras, TensorFlow)
- Relational Databases (PostgreSQL, MySQL)
- Docker
- Java
- NoSQL Databases (MongoDB)
- Source Code Instrumentation (TXL)
- Graph Databases (Neo4J)
- JavaScript (NodeJS backend)
- Python (Flask backend)

PROJECTS

Automatic Localization of Concurrent Faults April 2018 – *Present*

As part of my master's thesis research, I am developing a tool that can automatically localize concurrency bugs given a unit of source code and a set of tests. To achieve this, different sections of the given program are noised; then, the scope is narrowed down using a binary-search approach.

Docker Java Python TXL

Mentor-Mentee Matching System February 2018 – *Present*

Designed and implemented a platform for a matching system between mentors and mentees for the Peer Mentorship Program at the university. Given a set of survey answers, our system matches them according to their compatibility and stores the results for other visualization features.

CSS Docker HTML JavaScript Neo4J PostgreSQL Python

Distracted Driver Detection December 2017

Using a Convoluted Neural Network and transfer learning, we were able to build a model that could successfully predict if the individual in an image is driving responsibly or if they are distracted.

Keras Jupyter Notebooks Python TensorFlow

Threaded Paws October 2016 – October 2017

As part of my undergraduate thesis project, I designed and developed a serious game that can assist students in learning different concurrency concepts. Threaded Paws is the first educational game targeting concurrency that we are aware of.

C# Unity Game Engine

dynOBD October 2016 – December 2016

Android mobile application that, over a Bluetooth connection with a vehicle, can provide live data, like current speed and throttle. Moreover, the user can choose to keep track of trips' information, such as origin, destination, time and maximum speed.

Android Studio Java

EXPERIENCE

Graduate Teaching Assistant September 2017 – *Present*
University of Ontario Institute of Technology, Faculty of Science

Managed laboratory activities for students to complete outside of their lecture sections as part of a C++ introductory course and a Software Quality Assurance advanced course.

Undergraduate Teaching Assistant January 2017 – April 2017
University of Ontario Institute of Technology, Faculty of Science

Managed laboratory activities for students to complete outside of their lecture sections as part of a C++ introductory course.

System Administrator September 2014 – December 2014
Assistant System Administrator May 2014 – August 2014
University of Ontario Institute of Technology, International Office

Design and maintenance of the International Office website. In addition, aided in the planning and marketing processes for various events held for international and exchange students. As System Administrator, also oversaw international students' University Health Plan (UHIP) coverage.

EXTRACURRICULAR ACTIVITIES

Program Representative: Computer Science September 2017 – Present
UOIT Graduate Student Council

The GSC ensures that the university is aware of the concerns of graduate students and advocates for resolutions and changes were applicable. Program Representatives are closely involved with all of the council matters, and act as a bridge between the GSC and the rest of the students.

Founding Chair September 2016 – December 2016
Vice-Chair May 2018 – September 2018
UOIT ACM-W (Women's) Student Chapter

Responsible for leading the team and managing the chapter's activities in accordance with the mission of ACM and ACM-W. The chapter provided opportunities for networking and mentoring for all students on campus, especially those in STEM programs.

GitHub's Local Hack Day: Mentor and Judge September 2016 – April 2017
UOIT Computer Science Society and University of Ontario Institute of Technology

Mentored by offering support to the participants in terms of ideas, development workflow, and implementation. Also partook in the judge panel by voting for best hack of the event.

Secretary September 2015 – April 2016
Webmaster and Social Media Director September 2014 – April 2015
American Society of Mechanical Engineering (ASME), UOIT Student Chapter

Designed and managed the chapter's website by keeping it current in accordance to the events hosted. Organized and carried out all general and executive meetings pertaining chapter matters.

LANGUAGES

English (Advanced), **Spanish** (Mother Language), **French** (Basic)