

LUISA ROJAS GARCIA



Computer Scientist

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Enthusiastic and relentless Computer Scientist in the lookout for opportunities and good problems to solve. As a second-year master's student, my research interest currently lies in automatic fault localization in concurrent programs.






EDUCATION

-  **Master's (MSc. Computer Science)** September 2017 – August 2019 (expected)
University of Ontario Institute of Technology
-  **Bachelor (BSc. Computer Science)** September 2013 – April 2017
University of Ontario Institute of Technology

SKILLS

C	● ● ● ● ●	Java	● ● ● ● ●	Python	● ● ● ● ●
C++	● ● ● ● ●	JavaScript	● ● ● ● ●	Scala	● ● ● ● ●
Clojure	● ● ● ● ●	Keras	● ● ● ● ●	SQL	● ● ● ● ●
CSS	● ● ● ● ●	MongoDB	● ● ● ● ●	Tensorflow	● ● ● ● ●
Docker	● ● ● ● ●	NodeJS	● ● ● ● ●	TXL	● ● ● ● ●
HTML	● ● ● ● ●	Neo4J	● ● ● ● ●		

PROJECTS

-  **Automatic Localization of Concurrent Faults** April 2018 – Present
Concurrent programs can be very difficult to test and debug, considering their nondeterministic nature. For this reason, and as my thesis topic, I am developing a tool that can automatically localize concurrency bugs given a unit of source code and a set of tests.
-  **Distracted Driver Detection** December 2017
Using a Convolutional 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.
-  **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're aware of.
-  **Parallel Genetic Algorithms** April 2017
A simple program implementing a genetic algorithm was significantly optimized by parallelizing its crossover and parent-selection processes. Then, run times between sequential and parallelized versions were recorded and compared.
-  **dynOBD** October 2016 – December 2016
Android application that, over a Bluetooth connection with a vehicle, provides live data such as current speed and throttle. Moreover, the user can choose to keep track of trips' information, like origin, destination, time and maximum speed.

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. I marked all submissions and provided availability for office hours and drop-ins.
- ✓ **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. I marked all submissions and provided availability for office hours and
- ✓ **System Administrator** September 2014 – December 2014
University of Ontario Institute of Technology, International Office
In addition to the responsibilities mentioned below, I helped oversee students' UHIP coverage.
- ✓ **Assistant System Administrator** May 2014 – August 2014
University of Ontario Institute of Technology, International Office
Design and maintenance of the department website. Also aided in the planning and marketing processes for various events held for international and exchange students.

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 where 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.
- ✿ **Vice-Chair** May 2018 – September 2018
UOIT ACM-W Student Chapter
As the chapter's Founding Chair, I mentored my peers in order to make it possible to continue our mission on campus once I graduate. In doing so, I helped oversee and manage all of the chapter's administration, such as social and academic events, workshops, budget and marketing.
- ✿ **GitHub's Local Hack Day: Mentor and Judge** September 2016 – April 2017
UOIT Computer Science Society and University of Ontario Institute of Technology
As a mentor, I offered support to the participants in terms of ideas, development workflow, and implementation. At the end of the day, I joined the judge panel to select the best hack of the event.
- ✿ **Founding Chair** September 2016 – December 2016
UOIT ACM-W Student Chapter
As the chapter's principal officer, I was responsible for leading the team and managing the chapter's activities in accordance with the mission of ACM-W and ACM. We provided opportunities for networking and mentoring for all students on campus, especially those in STEM programs.

LANGUAGES

