

Federico Mora

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RESEARCH INTERESTS

I am interested in the automated verification and construction of programs and proofs. My research focuses on logic, programming languages, and software engineering.

EDUCATION

- June 2018 **M.Sc. Computer Science**
Supervised by Marsha Chechik
University of Toronto
- June 2016 **B.Sc. Computer Science and Mathematics**
First Class Honours with Distinction
Mount Allison University

PUBLICATIONS AND WORK IN PROGRESS

- [1] **Federico Mora**, Yi Li, Julia Rubin, and Marsha Chechik. Client-Specific Equivalence Checking. In *Automated Software Engineering (ASE)*, pages 441–451, 2018.
- [2] Dmitry Blotsky, **Federico Mora**, Murphy Berzish, Yunhui Zheng, Ifaz Kabir, and Vijay Ganesh. StringFuzz: A Fuzzer for String Solvers. In *Computer Aided Verification (CAV)*, pages 45–51, 2018.
- [3] **Federico Mora**, Murphy Berzish, Marsha Chechik, and Vijay Ganesh. Solving Word Equations Through Counterexample-Guided Abstraction Refinement. In Progress.
- [4] Joe Scott, **Federico Mora**, Pascal Poupart, and Vijay Ganesh. BanditFuzz: Fuzzing Floating-Point SMT Solvers with Reinforcement Learning. In Progress.

RESEARCH POSITIONS

- 2016-19 **Research Assistant, University of Toronto**
Software Engineering Research Lab
Supervised by Marsha Chechik
- 2017 **Research Intern, General Motors**
Electronic Control Systems Lab
Supervised by Ramesh S
- 2015-16 **Research Assistant, University of Saskatchewan**
Numerical Simulation Lab
Supervised by Raymond Spiteri
- 2014-15 **Research Assistant, Mount Allison University**
Entity Attribute Sketch Implementation Kit (EASIK)
Supervised by Robert Rosebrugh

TEACHING POSITIONS

- Current **Head Teaching Assistant, University of Toronto**
CSC 410: Software Testing and Verification
- 2016-18 **Teaching Assistant, University of Toronto**
CSC 324: Principles of Programming Languages
CSC 384: Introduction to Artificial Intelligence (2)
CSC 410: Software Testing and Verification
- 2015-16 **Teaching Assistant, Mount Allison University**
COMP 1631: Introduction to Computer Science

PROFESSIONAL SERVICE

Ongoing	Volunteer Waterloo Summer School on Machine Learning, Verification, and Security (Aug. '19)
2017-18	External Reviewer Automated Software Engineering (ASE '17, '18) Computer Aided Verification (CAV '18) International Joint Conference on Automated Reasoning (IJCAR '18) Symposium on the Foundations of Software Engineering (FSE '17)

MENTORING AND SUPERVISION

Nick Feng (M.Sc.)	Client-Specific Equivalence Checking of Multi-threaded Programs
Alex Tough (B.Sc.)	Client-Specific Equivalence Checking of LLVM Programs

AWARDS AND DISTINCTIONS

2018	C.C. Gotlieb (Kelly) Graduate Fellowship
2016-18	University Of Toronto Fellowship, Faculty Of Arts And Science
2017	Alfred B. Lehman Graduate Scholarship
2015-16	Allison (A.F.D) Calvert Memorial Award
2012-15	R.G.G Wilkinson Scholarship
2015	3rd Place Presentation, Science Atlantic Computer Science Conference
2014	4th Place Presentation, Science Atlantic Computer Science Conference
2011-14	Dean's List Standing
2011-12	Governor Thomas Carleton Scholarship

SUMMER SCHOOLS AND WORKSHOPS ATTENDED

July 2018 Oxford, UK	Verification and Deduction Mentoring Workshop Awarded 2018 Federated Logic Conference (FLoC '18) Travel Stipend to attend
July 2018 Manchester, UK	International Summer School on SAT, SMT, and Automated Reasoning Awarded SAT/SMT/AR Summer School Grant to attend

NON-ACADEMIC

Languages	English (native), Spanish (native), and French (basic).
Certificates	Canadian Soccer Association community coaching: "Active Start" (ages 4-6), "Fundamentals" (ages 6-9), and "Learning to Train" (ages 8-12).
Awards	Canadian Interuniversity Sport Academic All-Canadian (4); Jack Drover Athletics Award (2); David MacArel MacAulay Award (2); Mount Allison men's varsity soccer team captain (2); Soccer New Brunswick Male Bursary Award (1); and New Brunswick provincial soccer team captain (1).