Mark Armstrong

Ph.D. candidate

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Education

Ph.D. in Computer Science — McMaster University, 2015 - Present

- Mechanising models of computability theory.
- 3rd place in 2019 Computing and Software poster competition.
- GPA: 11.75 on 12 point scale.

M.Sc. in Computer Science — McMaster University, 2013 - 2015

- Investigated results from classical computability theory in the context of computability over the real numbers.
- GPA: 11.75 on 12 point scale. Graduated with distinction.

B.A.Sc. in Computer Science — McMaster University, 2008 - 2013

- Research projects:
  - Summer 2010: on (theoretical) models of concurrency with Dr. Ryszard Janicki.
  - Summer 2013: on mechanising mathematical knowledge with Dr. Jacques Carette.
- GPA: 11.1 on 12 point scale. Graduated with distinction. On Dean's Honour List in every year.

Employment

Sessional faculty — McMaster University, 2013 - Dec 2019

- 4 appointments for Computer Science 3MI3, "Principles of Programming Languages".
- Planned and prepared lecture materials and assignments/tests including both written and programming evaluations.
- Supervised teaching assistants.

Teaching assistant — McMaster University, 2013 - Dec 2019

- 13 appointments, primarily to courses on programming language theory and discrete mathematics.
- Prepared and led tutorial sessions and office hours, marked student work.
- In some cases, appointed to supervise other teaching assistants.

Research assistant — McMaster University, Summers 2010 and 2012

- Independently carried out research on topics selected by supervising professors.

Embedded Systems Test Dev, Intern — Blackberry, May 2011 - Aug 2012

- Developed automated tests and testing systems for the GPS system of the BB10 operating system.

Objectives

Developing beautiful software projects, emphasising

- *beauty of purpose*,
- *correctness*,
- *generous documentation*.

Learning new languages and design patterns.
Gaining further experience with medium and large-scale development projects.

Skills

Programming

Expert Agda, Emacs lisp
Experienced C, C++
Familiar Python, Ruby, Haskell

Other software proficiencies

Git, subversion, Emacs, Org mode, LaTeX

Soft skills

Teaching, mentoring, developing documentation

Publications

- Armstrong, Mark & Zucker, Jeffery, Notions of semicomputability in topological algebras over the reals, Computability, vol. 8, no. 1, pp. 1-26, 2019

Awards

Graduate studies scholarships and fellowships

Name	Years held	Value
NSERC Postgraduate Scholarship, Doctoral	2017 - 2019	$42,000
Ontario Graduate Fellowship	2016 - 2017	$12,000
Dean's Excellence Engineering Doctoral Award	2015 - 2018	$127,500[1]
NSERC Canadian Graduate Scholarship, Masters	2014 - 2015	$17,500
Ontario Graduate Scholarship	2013 - 2014	$15,000

1. Included guaranteed teaching assistant employment income for those years.

Other

Name	Date	Value	Description
Gerald L. Keech Medal	2013	——	For highest graduating GPA in program that year.
Ruth and Jack Hall Prize	2011	$225	For highest 3rd year GPA in program.
Dr. Harry Lyman Hooker Scholarship	2011	$1500	For academic excellence.
Createch Scholarship	2010	$1000	For highest 2nd year GPA in program.
Nortel Networks Scholarship	2009	$1000	For academic excellence.
McMaster entry scholarship	2008	$2000	

Extracurricular

- Father of two.
- Blog at `https://armkeh.github.io`.
- Occasional school trip volunteer at R.A. Riddell Elementary.
- Church secretary, board member, music and youth leader at Mountain Church of the Nazarene, 2007-2015.

This document available in multiple formats from `https://github.com/armkeh/resume/`.