Mario J. Badr

CONTACT INFORMATION	The Edward S. Rogers Department of Electrical and Computer Engineering 10 King's College Road, Toronto, ON M5S 3G4 Canada University of Toronto

EDUCATION

University of Toronto, Toronto, Ontario, Canada

> Ph.D. Candidate, Computer Engineering, September, 2013 - Present
>
>> Dissertation: "Developing Novel Evaluation Methodologies for Assessing Multi-Threaded Applications"
>> Advisor: Natalie Enright Jerger

University of Toronto, Toronto, Ontario, Canada

> M.A.Sc, Computer Engineering, January, 2014
>
>> Thesis: "Synthetic Traffic Models That Capture Cache Coherent Behaviour"
>> Advisor: Natalie Enright Jerger

University of Toronto, Toronto, Ontario, Canada

> B.A.Sc, Electrical Engineering, May, 2011

RESEARCH
INTERESTS

Computer architecture, interconnection networks, many/multi-core architectures, cache coherence, application modelling, machine learning.

PEER-REVIEWED
PUBLICATIONS

Joshua San Miguel, **Mario Badr**, and Natalie Enright Jerger. Load Value Approximation In Proceedings of the International Symposium on Microarchitecture (MICRO), to appear, December 2014. (acceptance rate: 19%)

Mario Badr and Natalie Enright Jerger. SynFull: Synthetic Traffic Models Capturing a Full Range of Cache Coherence Behaviour. In Proceedings of the International Symposium on Computer Architecture (ISCA), June 2014. (acceptance rate: 18%)

TEACHING
EXPERIENCE

Engineering Strategies and Practice, 1st Year Undergraduate

Teaching Assistant   *Tutorials*
Supervised students through the design process for a given project and provided feedback on written design documents, with a focus on stimulating an engineering methodology to design.

Computer Fundamentals, 1st Year Undergraduate

Teaching Assistant   *Tutorials, Computer Lab*
Taught the fundamentals of computer programming in C, including data structures, recursion, sorting algorithms.

Computer Organization, 3rd Year Undergraduate

Teaching Assistant   *Computer Lab*
Supervised and helped students implement a simple von Neumann processor using verilog.

Computer Architecture, 4th Year Undergraduate & Graduate

Teaching Assistant   *Tutorials, Computer Lab*
Taught computer architecture concepts, including caches, pipelining, out-of-order cores, cache coherence.

PRESENTATIONS AND POSTERS	**International Symposium on Microarchitecture**

International Symposium on Microarchitecture

Poster   *December, 2014*

Joshua San Miguel, Mario Badr, and Natalie Enright Jerger. *Load Value Approximation*

Connections: University of Toronto ECE Graduate Symposium

Presentation   *May, 2014*

Mario Badr and Natalie Enright Jerger. *SynFull: Synthetic Traffic Models That Capture Cache Coherent Behaviour.* (Awarded Best Oral Performance)

Connections: University of Toronto ECE Graduate Symposium

Presentation   *May, 2012*

Mario Badr, Wenbo Dai, and Natalie Enright Jerger. *Realistic Synthetic Traffic.*

INDUSTRY EXPERIENCE

Environment Canada, Toronto, Ontario Canada

Intern   *June, 2009 - August, 2010*

Implemented new features and bug fixes for the NinJo workstation, a java-based tool for meteorologists. Notable projects include upgrading the visualization framework for lightning strikes to be faster and use significantly less memory, incorporating storm cell data for Canada, and helping to create a configurable view of weather data for a given storm cell.

SCHOLARSHIPS & AWARDS

SGS Conference Grant - *$800*   *2014*

TD Bank Higher Education Award - *$3,800*   *2007*

UNIVERSITY SERVICE

Member
    Bargaining Support Committee, *January - April, 2014*

Steward
    Canadian Union of Public Employees, *2013-2014*

Social Event Coordinator
    Electrical and Computer Engineering Graduate Student Society, *2012-2013*