

JASON ERNST

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EDUCATION

2009 – Present

Doctor of Philosophy, Computer Science Program

University of Guelph, Guelph ON, Canada

Specialization: Distributed Systems (Wireless Mesh Networks)

Advisors: Dr. Nidal Nasser

AVG: 84.8% (A)

2007 – 2009

Master of Science: Applied Computing

University of Guelph, Guelph ON, Canada

Specialization: Distributed Systems (Wireless Mesh Networks)

Advisors: Dr. Mieso Denko & Dr. Hongbing Fan

AVG: 85.2% (A)

2003 – 2007

Honours Bachelor of Science Program

Wilfrid Laurier University, Waterloo ON, Canada

Major: Computer Science Minor: Physics

GPA: 7.28 (B-)

AWARDS

2008 – Present

Dean's List

University of Guelph, Guelph ON, Canada

2007

Graduate Research Assistantship

University of Guelph, Guelph ON, Canada

2007

Honours in Computer Science

Wilfrid Laurier University, Waterloo ON, Canada

2003

Undergraduate Entrance Scholarship

Wilfrid Laurier University, Waterloo ON, Canada

PUBLICATIONS

12/2010

J.B. Ernst, M.K. Denko, T. Nkwe et. al, "Autonomic and Pervasive Networking," Book Chapter in Pervasive Computing and Networking, Editors: Mieso K. Denko, Mohammad S Obaidat, John Wiley and Sons, in Press 2010.

11/2010

J.B. Ernst, T., Nkwe, "Adaptive Mixed Bias Resource Allocation for Wireless Mesh Networks", accepted to appear at the Fifth International Conference on Broadband and Wireless Computing, Communications and Applications, Fukuoka, Japan, November 2010.

05/2010

J.B. Ernst, M.K. Denko, "Cross-Layer Mixed Bias Scheduling for Wireless Mesh Networks", presented at IEEE International Conference on Communications (ICC 2010), Capetown, South Africa, 2010.

02/2010

J.B. Ernst, M.K. Denko, "The Design and Evaluation of Fair Scheduling in Wireless Mesh Networks," in Special Issue: Journal of Computer and System Sciences, Elsevier, 2010.

- 12/2009 T.K.R. Nkwe, M.K. Denko and J.B. Ernst, "Data ubiquity in autonomic wireless mesh networks," in the Journal of Ambient Intelligence and Humanized Computing, Springer-Verlag, 2009.
- 09/2009 J.B. Ernst, M.K. Denko, "A Review of Cross-Layer Design for Scheduling in Wireless Mesh Networks", in IEEE Toronto International Conference - Science and Technology for Humanity (TIC-STH 2009), Toronto, Canada, 2009.
- 05/2009 J. Ernst, M. Denko "Fair Scheduling with Multiple Gateways in Wireless Mesh Networks," in Proceedings of Advanced Information Networking and Applications (AINA 2009), May, 2009. Bradford, UK.
- 09/2008 H. Fan, Y-L. Wu, J. Ernst. "Customized Reconfigurable Interconnection Networks for Multiple Application SOCS," in Proceedings of the International Conference on Field Programmable Logic and Applications (FPL '08). September 2008.
- 08/2008 H. Fan, Y.-L. Wu, J. Ernst. "Algorithms and Implementation for Interconnection Graph Problem," in Proceedings of the 2nd Annual International Conference on Combinatorial Optimization and Applications (COCOA '08). August 2008.

PROFESSIONAL ACTIVITIES & VOLUNTEER EXPERIENCE

- 11/2010 **Publicity Co-Chair and Webmaster**, The Third International Workshop on Next Generation of Wireless and Mobile Networks (NGWMN-2010), Fukuoka, Japan, November 4-6, 2010
- 09/2010 **Technical Program Committee (TPC)**, The Third Conf. on Wireless Communication and Information Technology for Developing Countries (WCITD10), Brisbane, Australia, September 20 - 23, 2010.
- 05/2010 **Attendee**, Discovery 2010, Ontario Centres of Excellence Conference in Toronto ON, Canada
- 11/2009 **Publicity Co-Chair and Webmaster**, The Second International Workshop on Next Generation of Wireless and Mobile Networks (NGWMN-09), Vienna, Austria, September 22-25, 2009
- 09/2009 **Volunteer and Attendee**, Adhocnets 2009 Conference in Niagara Falls ON, Canada
- 2009 – Present **Chair and Founding Member**, Guelph ACM Student Chapter
- 2009 – Present **Reviewer** for the Springer Journal of Wireless Personal Communications
- 2009 – Present **Webmaster, Co-ordinator** for Pervasive Computing and Wireless Network Research Group (PERWIIN), University of Guelph
- 2009-2010 **Reviewer** for Wiley book on Pervasive Computing and Networking
- 2008 – 2009 **Web Developer** for Civics Education Network, Toronto ON, Canada
- 2007 – 2008 **Foot Patrol** at Wilfrid Laurier University, Waterloo ON, Canada

PRESENTATIONS

- 08/2010 **Radio Resource Management in Heterogeneous Wireless Networks** at Research Day 2010, University of Guelph, Guelph ON, Canada

- 05/2010 **Cross-Layer Mixed Bias Scheduling for Wireless Mesh Networks**
at International Conference on Communication (ICC 2010)
Capetown, South Africa
- 09/2009 **A Review of Cross-Layer Design for Scheduling in Wireless Mesh
Networks** at Toronto International Conference on Science and
Technology for Humanity (TICSTH2009), Toronto ON, Canada
- 05/2009 **Fair Scheduling with Multiple Gateways in Wireless Mesh Networks**
at Advanced Information Networking and Applications (AINA 2009)
University of Bradford, Bradford, United Kingdom
- 05/2008 **Wireless Mesh Networks: Cross-Layered Scheduling**
Pervasive and Wireless Networking Research Group (PERWiN)
University of Guelph, Guelph ON, Canada
- 03/2008 **Fair Scheduling and Load Balancing in Wireless Mesh Networks**
Pervasive and Wireless Networking Research Group (PERWiN)
University of Guelph, Guelph ON, Canada
- 11/2007 **Optimization of Protocols for Wireless Mesh Networks**
Pervasive and Wireless Networking Research Group (PERWiN)
University of Guelph, Guelph ON, Canada

TEACHING & GRADING EXPERIENCE

- Fall 2010 **Teaching Assistant**, University of Guelph
Course: CIS2030 Structure and Applications of Microprocessors
- Winter 2010 **Teaching Assistant**, University of Guelph
Course: CIS2500 Intermediate Programming (C language)
- Fall 2009 **Teaching Assistant**, University of Guelph
Course: CIS2030 Structure and Applications of Microprocessors
- 2007-2008 **Teaching Assistant / Grader**, Wilfrid Laurier University
Course: CP411 Computer Graphics

WORK EXPERIENCE

- 2008 – 2009 **Web Developer**
Conestoga College, Kitchener ON, Canada
- 2008 – Present **Small Business Owner, IT Consultant**
Ernst Consulting, Waterloo ON, Canada