Curriculum Vitae
for

Dwight Makaroff, Ph.D.
Department of Computer Science
University of Saskatchewan

1. Personal
Born: August 27, 1962.

2. Academic Credentials:
Bachelor of Commerce, (Honours/ Great Distinction) University of
Saskatchewan, 1985, Computational Science
Master of Science, University of Saskatchewan, 1988, Computational
Science
Doctor of Philosophy, University of British Columbia, 1998, Computer
Science

4. Appointment(s) and Promotions (U of S):
Associate Professor, Department of Computer Science, July 2001-June
2012
Professor, Department of Computer Science, July 2012-present
Job Duties:
   a) Teaching – Section 9
   b) Graduate Student Supervision – Section 10
   c) Research – Sections 11-21
   d) Service and Administration – Sections 22-28

5. Associate Memberships
College of Graduate Studies and Research, University of Saskatchewan

College of Engineering, University of Saskatchewan (2001-2007, 2008-
2015)

6. Leaves
Sabbatical Leave – July 1, 2007 to June 30, 2008
   Lancaster University, Lancaster, UK (September 15/07 – January 28/08)
   University of North Carolina, Chapel Hill, NC, USA (Feb. 10/08 – June
   15/08)

7. Honours (Medals, Fellowships, Prizes)
1986-1988: NSERC Graduate Scholarship
1984-1985: U of Saskatchewan Honours Scholarship
1984:   NSERC USRA Summer Student Scholarship
1983-1984: U of S Scholarship

8. Previous Positions Relevant to U of S Employment:

Assistant Professor, School of Information Technology and Engineering, University of Ottawa, (undergraduate courses in databases/operating systems, graduate course in e-Commerce) August 1999 - June 2001

Lecturer, Department of Computer Science, University of British Columbia (undergraduate courses in operating systems, intro programming, discrete mathematics)   September 1998 - August 1999

Teaching Assistant, Department of Computer Science, University of British Columbia (undergraduate courses in distributed systems, operating systems, programming languages)
September 1993 - April 1998

Assistant Professor of Computer Science/Mathematics, Department of Mathematical Sciences, Trinity Western University (various undergrad Computer Science and Math courses)
August 1990 - May 1993

Instructor in Computer Science, Dept. of Mathematics/Computer Science, Bethel College, St. Paul, MN (various undergrad Computer Science and Math courses)
August 1988 – May 1990

9. Teaching Record

9.1   Scheduled Teaching Activity

YEAR	COURSE	INST. TYPE	ENRL.	YIH	YCSH
2014 T1	CMPT 332.3 Principles of Operating Systems	Lec	54	39.0	2106
2014 T2	CMPT 434.3 Computer Networks	Lec	24	39.0	936
2014 T1&T2	CMPT 994.3 Research	Res	3		
2014 T1&T2	CMPT 996.3 Research	Res	1		
2013 T1	CMPT 332.3 Principles of Operating Systems:	Lec	41	39.0	1599
2013 T2	CMPT 432.3 Advanced Operating Systems Principles	Lec	10	39.0	390
2013 T2	CMPT 865.3 Advanced Parallel and Distributed	Sem	3	39.0	117
2013 T1&T2	CMPT 880.3 Research Methods and Topics I, co-supervised one student, was second reader for one student: Zhihong Zhang – The Comparison of TCP and UDP Performance in Cloud-based Role-Playing Games	Res	1		
2013 T1&T2	CMPT 994.3 Research	Res	6		
2013 T1&T2	CMPT 996.3 Research	Res	1		
2012 T1	CMPT 332.3 Principles of Operating Systems	Lec	34	39.0	1326
2012 T2	CMPT 433.3 Network/System Administration	Lec	6	39.0	234
2012 T1&T2	CMPT 880.3 Research Methods/Topics I	Res	1		

supervised one student, was second reader for one student:

Alireza Montazeri Ghahjavarestani – Distributed Video Caching in Decentralized Unstructured P2P Networks

2012 T1&T2	CMPT 994.3 Research	Res	6		
	CMPT 996.3 Research	Res	1		
2011 T1	CMPT 332.3 Principles of Operating Systems	Lec	37	39.0	1443
2011 T2	CMPT 432.3 Advanced Operating Systems Principles	Lec	2	39.0	78
2011 T2	CMPT 832.3 Advanced Operating Systems Principles	Lec	1	39.0	39
2011 T2	CMPT 865.3 Advanced Parallel and Distributed Systems	Sem	4	39.0	156
2011 T1&T2	CMPT 880.3 Research Methods and Topics I	Res	3		

supervised two students, co-supervised one student, was second reader for one student:

Jagmohan Chauhan – The Impact of Task Scheduler Configuration Settings on MapReduce Applications (co-supervised with Winfried Grassmann)

Shaiful Chowdhury – Time Varying Popularity Characteristics of YouTube Videos Revisited

Khadija Rasul – Network System Call Tracing in Distributed Applications

2011 T1&T2	CMPT 400.3: Research Methods in Computer Science	Res	4		

– supervised two students, co-supervised two students.

Spencer Clark – Developing and Evaluating a Lossless Compression Scheme for Scientific Data from a Nano-satellite (co-supervised with Kevin Stanley)

Sam Ferguson – Scouring Elephantine Datasets: A comparison of two widespread residential internet technologies (co-supervised with Mike Horsch)

Kyle McKenna – Video Compression: Degrading B-frames

Taylor Ross – Examining Possible Solutions to Python's GIL Problem

2011 T1&T2	CMPT 994.3 Research	Res	7		
2011 T1&T2	CMPT 400.3 Research Methods in Computer Science –				

course co-coordinator – 10 students.

2011 T1&T2	CMPT 405.3 Software Engineering Project –				

course co-coordinator – 3 students

2010 T1	CMPT 332.3 Principles of Operating Systems	Lec	48	39.0	1872
2010 T2	CMPT 432.3 Advanced Operating Systems Principles	Lec	9	39.0	351
2010 T2	CMPT 832.3 Advanced Operating Systems Principles	Lec	1	39.0	39
2010 T2	CMPT 865.3 Parallel and Distributed Systems	Sem	5	39.0	195
2010 T1&T2	CMPT 880.3 Research Methods and Topics I	Res	1		

co-supervised one student, second reader for 2 students.

Tanjil Hossain – Reducing Energy in Smart Phones (co-supervised with Derek Eager).

2010 T1&T2	CMPT 400.3 Research Methods in Computer Science –				

course co-coordinator - 9 students.

2010 T1&T2	CMPT 405.3 Software Engineering Project –				

course co-coordinator – 4 students.

2010 T1&T2	CMPT 994 Research	Res	5		
2009 T1	CMPT 332.3 Principles of Operating Systems	Lec	36	39.0	1404
2009 T2	CMPT 432.3 Advanced Operating Systems Principles	Lec	6	39.0	234
2009 T2	CMPT 434.3 Computer Networks	Lec	14	39.0	546
2009 T2	CMPT 865.3 Parallel and Distributed Systems	Sem	1	39.0	39

2009 T1&T2	CMPT 880.3 Research Methods and Topics I	Res	1		

supervised one student, second reader for one student.
 Anthony Arkles - MT-WAVE: Profiling Multi-Tier Web Applications.

2009 T1&T2	CMPT 994.3 Research	Res	5		
2009 T1&T2	CMPT 996.3 Research	Res	1		

2009 T1&T2	CMPT 400.3 Research Methods in Computer Science –
course co-coordinator - 2 students.

2009 T1&T2	CMPT 405.3 Software Engineering Project –
course co-coordinator – 4 students

2008 T1	CMPT 332.3 Principles of Operating Systems	Lec	43	39.0	1677
2008 T1	CME 898.3 Multi-core Architectures	Lec	4	39.0	156

 (co-taught with Carl McCrosky - ECE)

2008 T2	CMPT 832.3 Advanced Operating Systems Principles	Lec	1	39.0	39
2008 T2	CMPT 865.3 Parallel and Distributed Systems	Sem	3	39.0	117
2008 T2	CMPT 880.3 Research Methods and Topics I	Res	1		

supervised one student: Wojciech Quibell - Distributed End User Security   System In a
Community Wireless Mesh Network

2008 T1&T2	CMPT 994.3 Research	Res	4		
2008 T1&T2	CMPT 996.3 Research	Res	1		

2008 T1&T2	CMPT 400.3 Research Methods in Computer Science
– course co-coordinator - 13 students.

2008 T1&T2	CMPT 405.3 Software Engineering Project
– course co-coordinator – 4 students

2008 T1&T2	CMPT 400.3 Research Methods in Computer Science	Res	1		

co-supervised 1 student:
Chris Graham - Beyond The Blacklist and Whitelist Models.

2006 T1	CMPT 214.3 Programming Principles and Practice	Lec	82	39.0	3198
2006 T1	CMPT 332.3 Principles of Operating Systems	Lec	45	39.0	1755
2006 T2	CMPT 432.3 Advanced Operating Systems	Lec	13	39.0	507
2006 T2	CMPT 832.3 Advanced Operating Systems	Lec	1	39.0	39
2006 T2	CMPT 880.3 Research Methods and Topics I	Res	1		

supervised one student:
George Biswas - Pseudovirtualization with Application Server and its Performance Implication.

2006 T1&T2	CMPT 400.3 Research Methods in Computer Science –
course coordinator – 10 students.

2006 T1&T2	CMPT 405.3 Software Engineering Project –
course coordinator – 7 students

2006 T1&T2	CMPT 400.3 Research Methods in Computer Science	Res	3		

supervised 3 students:
Anthony Arkles - Asynchronous I/O and Distributed Filesystems.
Jon Lovering - Web-Session Clustering and Analysis.
Jordan Schidlowsky - Variable Bit-Rate Speech Coding Through Piecewise Curve
Approximations.

2006 T1&T2	CMPT 994.3 Research	Res	5		
2006 T1&T2	CMPT 996.3 Research	Res	1		

Term	Course	Type			
2005 T1	CMPT 332.3 Principles of Operating Systems	Lec	44	39.0	1716
2005 T2	CMPT 432.3 Advanced Operating Systems	Lec	7	39.0	273
2005 T2	CMPT 865.3 Parallel and Distributed Systems	Sem	2	39.0	78
2005 T2	CMPT 880.3 Research Methods and Topics I	Res	1		

supervised one student:
Dana Madsen - Characterizing a Distributed File System's Workload

| 2005 T1&T2 | CMPT 400.3 Research Methods in Computer Science | Res | 2 | | |

supervised 2 students:
Tim Austin - A Review of the Methodology to Characterize User Groups.
Dylan Griffiths - Investigation and Comparison of Micro-kernel and
Monolithic kernel Operating Systems.

| 2005 T1&T2 | CMPT 405.3 Software Engineering Project | Res | 1 | | |

supervised 1 student:
Ryan Harrison, Simulation of Distributed Metadata in Distributed Filesystems.

| 2005 T1&T2 | CMPT 994.3 Research | Res | 5 | | |
| 2005 T1&T2 | CMPT 996.3 Research | Res | 1 | | |

2004 T1	CMPT 214.3 Programming Principles and Practices	Lec	37	39.0	1443
2004 T2	CMPT 332/422.3 Principles of Operating Systems	Lec	48	39.0	1872
2004 T1&T2	CMPT 880/890 Research Methods and Topics I,	Res	2		

co-supervised two students, was second reader for two students
Qinxia He (880) – Peer-to-Peer Media Streaming
Jie Feng (890) – Sensor Network Aggregation

| 2004 T1&T2 | CMPT 400.3 Research Methods in Computer Science | Res | 1 | | |

supervised 1 student:
Ryan Silk - Using Concurrency for UNIX Boot Time Minimization

| 2004O T1 | CMPT 214.3 Programming Principles and Practices | Lec 40 | 39.0 | 1560 | |

– co-taught with Dave Callele.

2004 T1&T2	CMPT 990.3 Department Seminar Coordinator				
2004 T1&T2	CMPT 994.3 Research	Res	7		
2004 T1&T2	CMPT 996.3 Research	Res	1		

2003 T1	CMPT 815.3 Computer Systems and Performance Evaluation	Lec	9	39.0	351
2003 T1	CMPT 215.3 Computer Organization and Architecture	Lec 64	39.0	2496	
2003 T2	CMPT 422.3 Principles of Operating Systems	Lec	12	39.0	468
2003 T1&T2	CMPT 880.3 Research Methods and Topics I	Res	2		

supervised two students, was second reader for one student.
Jason Coutu – Parallel Hardware/Software Co-simulation
Nakul Aloni – Infrastructure vs Ad Hoc Media Streaming

| 2003 T1&T2 | CMPT 400.3 Research Methods in Computer Science | Res | 1 | | |

supervised 1 student:
Asynchronous I/O Support in Linux – Anthony Del Frari

| 2003 T1&T2 | CMPT 994.3 Research | Res | 6 | | |

| 2002 T1 | CMPT 815.3 Computer Systems and Performance Evaluation | Lec | 5 | 39.0 | 195 |

2002 T1	CMPT 330.3 Systems Programming and Introduction to Operating Systems				
		Lec	55	39.0	2145
2002 T2	CMPT 422.3 Principles of Operating Systems	Lec	22	39.0	858
2002 T1&T2	CMPT 880.3 Research Methods and Topics I	Res	3		

supervised three students and was second reader for one student.
Justice Daka – Mixed Reliability Media Streaming
Fengdi Yang – Asynchronous I/O
Fujian Liu – Proxy Media Caching

2002 T1&T2	CMPT 990.3 Department Seminar Coordinator				
2002 T1&T2	CMPT 994.3 Research	Res	5		

2001 T1	CMPT 815.3 Computer Systems and Performance Evaluation				
		Lec	6	39.0	234
2001 T2	CMPT 422.3 Principles of Operating Systems	Lec	38	39.0	1482
2001 T1&T2	CMPT 405 Software Engineering Project	Res	2		

supervised 2 students:
Logan Peters - MPEG-2 Video Client Implementation
Ryan Thompson - User Account Management

2001 T1&T2	CMPT 880 Research Methods and Topics I	Res	1		

supervised one student and was second reader for one student
Qing Wang – Workload Characterization in e-Commerce

2001 T1&T2	CMPT 990.3 Department Seminar Coordinator				
2001 T1&T2	CMPT 994.3 Research	Res	3		

9.2 Unscheduled Teaching Activity

9.3. Postgraduate Students Supervised or on their Committee

Name	Degree	Department	(Co) -Supervisor	Date
Supervised:				
Ali Montazeri Ghahjavarestani	Ph. D.	Computer Science		present
Anthony Arkles	M. Sc.	Computer Science		June 2015
Wojciech Quibell	M. Sc.	Computer Science		February 2015.
Khadija Rasul	M. Sc.	Computer Science		August 2013.
Shaiful Chowdhury	M. Sc.	Computer Science		August 2013.
Jason Coutu	M. Sc.	Computer Science		September 2009.
Justice Daka	M. Sc.	Computer Science		June 2007.
Fujian Liu	M. Sc.	Computer Science		October 2005.
Fengdi Yang	M. Sc.	Computer Science		August 2005.
Qing Wang	M. Sc.	Computer Science		October 2004.
Lateef Ogunleye	M. Sc.	Computer Science		May 2003.
Co-Supervised:				
Zhihong Zhuo,	M. Sc.	Computer Science	Derek Eager	present
Jagmohan Chauhan	M. Sc.	Computer Science	Winfried Grassmann	June 2013.
Tanjil Hossain	M. Sc.	Computer Science	Derek Eager	December 2012.

Jie Feng	Ph. D.	Computer Science	Derek Eager	June 2010.
Qinxia (Alice) He	M. Sc.	Computer Science	Derek Eager	June 2007.

Committee:

Khaled Haggag	M. Sc.	Computer Science	Ralph Deters	present
Yuntao Mei	M. Sc.	Computer Science	Derek Eager	present
Tuhin Paul	Ph. D.	Computer Science	Kevin Stanley	present
Dylan Knowles	M. Sc.	Computer Science	Kevin Stanley Nathaniel Osgood	November 2014
Amin Tavassolian	M. Sc.	Computer Science	Carl Gutwin Kevin Stanley	February 2014
Michael Bullock	M. Sc.	Computer Science	Derek Eager	January 2014
Md. Nazmul Hasan	M. Sc.	Computer Science	Derek Eager	January 2014
Md. Aminul Islam	M. Sc.	Computer Science	Derek Eager	January 2013
Gadi Tellez Espinoza	M. Sc.	Computer Science	Chris Dutchyn	August 2012
Qian Zheng	M. Sc.	Electrical/Computer Engineering	Kunio Takaya	August 2012.
Mehadi Hasan	M. Sc.	Computer Science	Nadeem Jamali	May 2012.
Shahriar Kaisar	M. Sc.	Computer Science	Derek Eager Kevin Stanley	January 2012.
Zongkai Chen	M. Sc.	Electrical/Computer Engineering	Daniel Teng	April 2011
Jason Boisvert	M. Sc.	Computer Science	Ray Spiteri	December 2010.
Dong Zhang	Ph. D.	Computer Science	Rick Bunt Nathaniel Osgood	August 2010.
Cinnati Loi	M. Sc.	Electrical/Computer Engineering	Seuk-Bom Ko	August 2010.
Bofu Yang	M. Sc.	Computer Science	Derek Eager	May 2010).
Venkat Pulimi	M. Sc.	Computer Science	Derek Eager Kevin Stanley	April 2010.
Umesh Gyawali	M. Sc.	Electrical/Computer Engineering,	Carl McCrosky	February 2009.
Lina (Leonard) Fang	M. Sc.	Electrical/Computer Engineering	David Klymyshyn	June 2007.
Qing Zhu	M. Sc.	Computer Science	Derek Eager	April 2007.
Hyun Hoi (James) Kim	M. Sc.	Computer Science	Carl Gutwin	February 2007.
Sajjad Rahaman	M. Sc.	Electrical/Computer Engineering	David Dodds	December 2006.
Adeniyi Onasanya	M. Sc.	Computer Science	Winfried Grassmann	April 2005.
Lichun Ji	M. Sc.	Computer Science	Ralph Deters	September 2004.
Yanping Zhao	Ph. D.	Computer Science	Derek Eager	July 2004.
Jingxiang Luo	Ph. D.	Computer Science	Winfried Grassmann	May 2004.
Anirban Mahanti	Ph. D.	Computer Science	Derek Eager	February 2004.
Dongmei Zhao	M. Sc.	Electrical/Computer Engineering	David Klymyshyn	February 2004.
Akihiro Tagachi	M. Sc.	Electrical/Computer Engineering	Kunio Takaya	December 2003.
Tianbo Kuang	M. Sc.	Computer Science	Carl McCrosky	November 2003.
Olumuyiwa Oni	M. Sc.	Computer Science	Winfried Grassmann	August 2003.
Jayakumar Srinivasan	M. Sc.	Computer Science	Derek Eager	June 2003.
Jason Hill	M. Sc.	Computer Science	Carl Gutwin	March 2003.
Raja Epsilon	M. Sc.	Computer Science	Carl McCrosky	February 2003.
Lixin Wang	M. Sc.	Computer Science	Rick Bunt	November 2002.

9.4 New or Revised Teaching Materials Developed or Authored

9.5 Substantially Revised or New Courses Developed and Approved

CMPT 214: Programming Principles and Practices. Developed course topics and assignments with David Callele in Spring 2004. Created new course notes for the lectures and lab assignments.

CMPT 332: Operating Systems Concepts. Moved the course on Operating Systems from fourth year (formerly CMPT 422) into third year. Modified course material from three previously existing courses (CMPT 330 and CMPT 422 University of Saskatchewan, and CPSC 315 UBC). Updated and reorganized notes.

CMPT 432: Advanced Operating Systems Concepts. Designed new Advanced Operating Systems course, based on courses previously taught and modified course notes from CPSC 415 UBC.

CMPT 433: Network and System Administration. Developed entire course from scratch in 2012-2013. Created HTML notes and designed assignments to incorporate practical administration tasks/skills and management policies.

9.7 Attendance at Teaching Improvement Workshops and Conferences

Attended Gwenna Moss Learning Institute Workshops
1.	Bloom, The Next Generation and Learning Objectives for Today's Generation of Students. (May 2007)
2.	Problems Solving in the Sciences. (May 2007)

9.10 Other Student Supervision

Undergraduate Summer Student Supervision:
Dylan Flowers – June to August 2014 - Real-time Communication Performance Evaluation for Multiplayer Mobile Games
Chad Hansen – NSERC USRA – May 2014 (interrupted, due to health concerns)
Chad Hansen – NSERC Engage Grant – May to August 2013.
Nigel Jurgens – NSERC Engage Grant – May to August 2013.
Spencer Clark – Department of Computer Science Summer Research
	Assistant - May to August 2011.
Joseph Eremondi (co-supervised with Derek Eager) – NSERC USRA –
	May to August 2010
Spencer Clark – Department of Computer Science Summer Research
	Assistant - May to August 2010.
Jeremy Guebert - NSERC – USRA - Jeremy Guebert – May to August 2009.
Carl Norum - NSERC USRA – May to August 2003.

Other Research Supervision:
Nigel Jurgens – MITACS Accelerate Grant – January to May 2014.

10. Theses Supervised

Theses Completed (M. Sc.):
Anthony Arkles - *MT-WAVE: Profiling Multi-Tier Web Applications* – June 2015
Wojciech Quibell – *Implementation and Evaluation of A Low Cost Intrusion Detection System for Community Wireless Mesh Networks* – February 2015.
Khadija Rasul – *Enhanced Community-Based Routing for Low-Capacity Pocket Switched Networks* – August 2013.
Shaiful Chowdhury – *Characterizing Popularity Dynamics of User-generated Videos: A Category-based Study of YouTube* – August 2013.
Jagmohan Chauhan (co-supervised with Winfried Grassmann) – *Simulation and Performance Evaluation of Hadoop Capacity Scheduler* – June 2013.
Tanjil Hossain (co-supervised with Derek Eager)- *An Energy Efficient HTTP Adaptive Streaming Protocol Design for Mobile Handheld Devices* – December 2012.
Jason Coutu - *Reduction of Co-Simulation Runtime Through Parallel Processing*, September 2009.
Justice Daka – *Mixed Streaming of Video over Wireless Networks*, June 2007.
Qinxia (Alice) He (co-supervised with Derek Eager) – *Analyzing the Characteristics of VOIP Traffic*, June 2007.
Fujian Liu - *Database Server Workload Characterization*, October 2005.
Fengdi Yang - *ARDAS: A Remote Data Access Service With Asynchronous Data Retrieval* August 2005.
Qing Wang - *Workload Characterization in E-Commerce Systems*, October 2004.
Lateef Ogunleye - *Performance Comparison of Routing in Mobile IPV6*, May 2003.

Theses Completed (Ph. D.):
Jie Feng, (co-supervised with Derek Eager), *Performance of Data Aggregation for Wireless Sensor Networks*, June 2010.

Theses in Progress (M.Sc.):
Zhihong Zhuo, Computer Science, full-time (co-supervised with Derek Eager)

Theses in Progress (Ph. D):
Ali Montazeri Ghahjavarestani, full-time

11. Books, Chapters in Books, Expository and Review Articles

Theses:

Makaroff, D.J. Design, _Implementation and Evaluation of a Variable Bit Rate Continuous Media File Server for a High Speed Network,_ Doctoral Dissertation, Department of Computer Science, The University of British Columbia, 1998.

Makaroff, D. J., _Disk Cache Management for Distributed Systems_, M.Sc. Thesis, Department of Computational Science, The University of Saskatchewan, 1988.

12. Papers in Refereed Journals:

PUBLISHED:

1. **Shaiful Alam Chowdhury** and **Dwight Makaroff***, "Category-Based YouTube Request Pattern Characterization," WEBIST 2013 (Selected Papers), Lecture Notes in Information Business Processing, Karl-Heinze Krempels and Alexander Stockey eds., Volume 189, pp. 154-169, 2014, Springer-Verlag. (Extended version of publication 9, with some new results and feedback from conference presentation included)

2. **Dwight Makaroff*** and Norman Hutchinson, "Development and evolution of a heterogeneous continuous media server: a case study," _Journal of Software Evolution and Maintenance,_ Volume 17, No. 2, pp 143-167, April 2005, John Wiley & Sons, Ltd.

3. **Dwight Makaroff***, Gerald Neufeld, and Norman Hutchinson, "Performance Evaluation of a VBR Continuous Media File Server Admission Control," _Software Practice and Experience,_ Vol 34, No. 12, pp 1187-1210, October 2004, John Wiley & Sons.

4. **Dwight Makaroff***, Gerald Neufeld, and Norman Hutchinson, "Design and Implementation of a VBR Continuous Media File Server," _IEEE Transactions on Software Engineering,_ Vol. 27, No. 1, pp 13-28, January 2001, IEEE Computer Society, Washington, DC.

5. **Dwight Makaroff** and Raymond Ng*, "Schemes for Implementing Buffer Sharing in Continuous-Media Systems," Information Systems: _The International Journal_ (special issue on Multimedia Systems), Vol. 20. No. 6, pp 445-464, 1995, Elsevier.

13. Non-Refereed Papers in Journals

PUBLISHED:

6. J. W. Wong*, K. A. Lyons, D. Evans, R. J. Velthuys, G. v. Bochmann, E. Dubois, N. D. Georganas, G. Neufeld, M. T. Oszu, J. Brinskelle, A. Hafid,

N. Hutchinson, P. Iglinski, L. Lamont, **D. Makaroff**, D. Szafron, "Enabling technology for distributed multimedia applications," IBM Systems Journal,Vol. 36, no. 4, pp 489-507, 1997.

14. Invited Papers in Published Conference Proceedings and Abstracts

PUBLISHED:
7. Khadija Rasul, Dwight Makaroff*, and Kevin G. Stanley, "Hybrid Community-Based Forwarding: A Complete Energy Efficient Algorithm for Pocket Switched Networks", *9th IEEE Workshop on Network Measurements (WNM 15), Co-located with LCN*, pp. 166-174, Clearwater Beach, FL, October 2015.

15. Contributed Refereed Papers in Published Conference Proceedings

15.1 Papers in Fully-Refereed Conference/Workshop Proceedings

Full Papers

PUBLISHED:
8. **Jagmohan Chauhan**, **Dwight Makaroff*** and Winfried Grassmann, "Simulation and Performance Evaluation of the Hadoop Capacity Scheduler," *IBM CASCON 2014*, pp. 163-177, Toronto, ON, Canada, November 2014 (31% acceptance rate).

9. **Khadija Rasul**, **Shaiful Alam Chowdhury**, **Dwight Makaroff*** and Kevin Stanley, "Community -Based Forwarding for Low-Capacity Pocket Switched Networks," *ACM Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWiM 2014)*, pages 249-257, Montreal, QC, Canada, September 2014 (25% acceptance rate).

10. **Shaiful Alam Chowdhury** and **Dwight Makaroff***, "Popularity Growth Patterns of YouTube Videos: A Category-based Study," *9th International Conference on Web Information Systems and Technologies* (*WEBIST 2013)*, Aachen, Germany, pages 233-242, May 2013 (19% acceptance rate: Best Student Paper Candidate).

11. **Spencer Clark**, **Dwight Makaroff*** and Kevin Stanley, "Developing and Evaluating a Lossless Compression Scheme for Scientific Data from a Nanosatellite," *Canadian Conference on Electrical and Computer Engineering (CCECE 2013)*, Regina, SK, Canada, 4 pages, May 2013.

12. **Shaiful Alam Chowdhury** and **Dwight Makaroff***, "Characterizing Videos and Users in YouTube: A Survey," *Seventh International IEEE Conference on Broadband and Wireless Computing, Communication and Applications (BWCCA)*, Victoria, BC, Canada, pages 244-251,

November 2012. (30% acceptance rate)

13. **Jagmohan Chauhan**, **Shaiful Alam Chowdhury** and **Dwight Makaroff***, "Performance Evaluation of Yahoo! S4: A First Look," *Seventh International IEEE Conference On P2P, Parallel, Grid, Cloud and Internet Computing (3PGCIC)*, Victoria, BC, Canada, pages 58-65, November 2012. (30% acceptance rate)

14. **Jagmohan Chauhan**, **Dwight Makaroff*** and Winfried Grassmann, "The Impact of Capacity Scheduler Configuration Settings on MapReduce Jobs," IEEE Cloud and Green Computing 2012, 667-674, Xiangtan, Hunan, China, November 2012 (50% acceptance rate).

15. Jeff Dyck, Carl Gutwin* and **Dwight Makaroff**, "Adaptive Forward Error Correction for Real-time Groupware," *GROUP '12*, Sanibel Island, FL, pp. 121-130, October 2012 (37% acceptance rate).

16. **Anthony Arkles** and **Dwight Makaroff***, "MT-WAVE: Profiling Multi-tiered Web Applications," *2nd ACM/SPEC International Conference on Performance Engineering (ICPE)*, Karlsruhe, Germany, pp. 247-258, March 2011 (30% acceptance rate).

17. **Jie Feng**, Derek Eager, and **Dwight Makaroff***, "Coverage Preserving Aggregation Protocols for Dense Sensor Networks," *35th IEEE Conference on Local Computer Networks*, Denver, CO, pp. 448-455, October 2010. (30% acceptance rate)

18. **Jeremy Guebert**, **Dwight Makaroff*** and Ketan Mayer-Patel, "Request Generation for a Peer-based PVR," *Proceedings of the 20th ACM International Workshop on Network and Operating Systems Support for Digital Audio and Video (NOSSDAV 2010)*, Amsterdam, The Netherlands, pp 99-104, May 2010. (40% acceptance rate)

19. **Jie Feng**, Derek Eager* and **Dwight Makaroff**, "Aggregation Protocols for High Rate, Low Delay Data Collection in Sensor Networks," *IFIP Networking 2009*, Aachen, Germany, pp. 26-39, May 2009. (20% acceptance rate)

20. **Justice Daka** and **Dwight Makaroff**, "Mixed Reliability Video Streaming," *IEEE Symposium on Wireless and Mobile Multimedia 2008 (WoWMoM)*, Newport Beach, CA, pp. 1-8, June 2008. (24% acceptance rate)

21. **Jie Feng**, Derek Eager* and **Dwight Makaroff**, "Asynchronous Data Aggregation for Real-time Monitoring in Sensor Networks," *IFIP Networking 2007,* Atlanta, GA, pp. 75-84, May 2007. (22% acceptance rate)

22. David Callele and **Dwight Makaroff***, "On Teaching to the Masses and the Masters: Competing Requirements for Undergraduate Education", *Western Canadian Conference on Computing Education (WCCCE)*, Calgary, AB, Canada, 9 pages, May 2006.

23. David Callele and **Dwight Makaroff***, "Teaching Requirements Engineering to an Unsuspecting Audience," *Proceedings of the 37th ACM SIGCSE Technical Symposium on Computer Science Education*, Houston, TX, pp. 433-437, March 2006. (35% acceptance rate)

24. **Fujian Liu**, **Dwight Makaroff***, and Said Elnaffar, "Classifying E-commerce Workloads under Dynamic Caching," *IEEE Systems, Man, and Cybernetics*, Waikaloa, HI, pp. 2819-2826, October 2005.

25. **Dwight Makaroff***, **Jason Coutu**, and **Fujian Liu**, "Disk Performance and VBR Admission Control for Media Servers," *Distributed Multimedia Systems*, Banff, AB, Canada, pp. 224-227, September 2005.

26. **Fujian Liu**, Yanping Zhao, Wenguang Wang, and **Dwight Makaroff***, "Database Server Workload Characterization in an E-Commerce Environment," *IEEE/ACM MASCOTS 2004*, Volendam, The Netherlands, pp. 475-483, October 2004. (39% acceptance rate)

27. **Qing Wang**, **Dwight Makaroff***, and Keith Edwards, "Characterizing Customer Groups for an E-commerce Website," *ACM Conference on Electronic Commerce*, New York, NY, pp. 218-227, May 2004. (17% acceptance rate, top conference in Electronic Commerce)

28. **Qing Wang**, **Dwight Makaroff***, Keith Edwards, and Ryan Thompson, "Workload Characterization for an E-commerce Web Site," *CASCON 2003*, Toronto, ON, Canada, pp. 313-327, October 2003. (35% acceptance rate)

29. **Fujian Liu** and **Dwight Makaroff***, "A Comparison of Continuous Media Stream Proxy Caching Policies," *7th IASTED International Conference on INTERNET AND MULTIMEDIA SYSTEMS AND APPLICATIONS - IMSA 2003*, Honolulu, HI, pp. 164-169, August 2003.

30. **Dwight Makaroff***, Gerald Neufeld, and Norman Hutchinson, "Network Bandwidth Allocation and Admission Control for a Continuous Media File Server," *6th International Workshop on Interactive Distributed Multimedia Systems and Telecommunication Services (IDMS)*, Toulouse, France, pp. 337-350, October 1999, Springer (30% acceptance rate).

31. **Dwight Makaroff***, Gerald Neufeld, and Norman Hutchinson, "A

Comparison of VBR Disk Scheduling Algorithms For Continuous Media File Servers," *ACM Multimedia*, Seattle, WA, pp. 143-154, November 1997.

32. J.W. Wong*, D. Evans, N. Georganas, J. Brinskelle, G. Neufeld, and **D. Makaroff**, "An Mbone-based Distance Education System," *International Conference on Computer Communication*, Cannes, France, pp. 101-106, November 1997

33. Gerald Neufeld*, **Dwight Makaroff** and Norman Hutchinson, "Server Based Flow Control in a Distributed Continuous Media Server," *6th International Workshop on Network & Operating System Support for Digital Audio/Video (NOSSDAV)*, Zushi, Japan, pp. 29-35, April 1996.

34. Gerald Neufeld*, **Dwight Makaroff** and Norman Hutchinson, "Design of a Variable Bit Rate Continuous Media File Server for an ATM Network," *IS&T/SPIE Multimedia Computing and Networking (MMCN)*, San Jose, CA, pp. 370-380, Jan 1996.

35. Gerald Neufeld*, **Dwight Makaroff** and Norman Hutchinson, "Design of a Variable Bit Rate Continuous Media File Server," *5th International Workshop on Network & Operating System Support for Digital Audio and Video (NOSSDAV)*, Durham, NH, pp. 375-378, May 1995.

36. **Dwight J. Makaroff** and Derek L. Eager*, "Disk Cache Performance for Distributed Systems," *10th International Conference on Distributed Computing Systems (ICDCS)*, Paris, France, pp. 212-219, June 1990.

Short Papers

PUBLISHED:
37. **Shaiful Alam Chowdhury** and **Dwight Makaroff***, "Category-based User Interaction with Online User-Generated Videos: Workload Characterization," *IBM CASCON 2014 Emerging Technologies Track*, pp. 367-370, Toronto, ON, Canada, November 2014.

38. **Dylan Griffiths** and **Dwight Makaroff***, "Hybrid vs. Monolithic OS Kernels: A Benchmark Comparison," *IBM CASCON 2006*, Toronto, ON, Canada, pp. 349-352, October 2006 (33% acceptance rate).

15.2 Papers in Fully-Refereed Conference Workshops

PUBLISHED:
39. **Jagmohan Chauhan** and **Dwight Makaroff***, "Performance Evaluation of Video-On-Demand in Virtualized Environments: The Client Perspective," *Proceedings of the 6th International Workshop on Virtualization Technologies in Distributed Computing (co-located with 21st*

ACM International Symposium on High-Performance Parallel and Distributed Computing (HPDC 2012)), Delft, The Netherlands, pp. 29-36, June 2012. (35% acceptance rate). Note: HPDC was ranked 118 of 1500 conferences in ArnetMiner, and an A-ranked conference in CORE.

40. **Dwight Makaroff**, Paul Smith*, Nicholas J. P. Race, David Hutchison, "Intrusion Detection Systems for Community Wireless Mesh Networks," *IEEE Mesh Tech Workshop 2008 (co-located with IEEE MASS)*, Atlanta, GA, pp. 610-616, September 2008 (35% acceptance rate).

15.3 Posters in Fully-Refereed Conferences

PUBLISHED:
41. **Chad Hansen**, **Nigel Jurgens**, **Dwight Makaroff***, Dave Callele and Philip Dueck, "Network Performance Measurement Framework for Real-Time Multiplayer Mobile Games," *Network and Systems Support for Games (NetGames 2013)*, pp. 1-2, Denver, CO, December 2013.

42. **Jagmohan Chauhan**, **Dwight Makaroff*** and **Tony Arkles**, "VM Clock Synchronization Measurements," *30th IEEE International Performance Computing and Communications Conference (IPCCC)*, Orlando, FL, pp. 1-2, November 2011. (44% poster submission acceptance rate). (B-ranked conference in CORE)

43. Sara Bury, **Dwight Makaroff**, Nicholas Race, Paul Smith*, and David Hutchison, "Challenges for Intrusion Detection in Community Wireless Mesh Networks," *Eurosys 2008*, Glasgow, UK, April 2008.

16. Technical Reports Relevant to Academic Field

PUBLISHED:
44. G. Neufeld, **D. Makaroff*** and N. Hutchinson, "Internal Design of the UBC Distributed Continuous Media File Server," Department of Computer Science Technical Report 95-06, University of British Columbia, April 1995.

45. D. Finkelstein, R. Mechler*, G. Neufeld, **D. Makaroff** and N. Hutchinson, "Real-Time Threads Interface," Department of Computer Science Technical Report 95-07, University of British Columbia, March 1995.

17. Book Reviews

18. Invited Lectures Outside U of S and Invited Conference Presentations:

Makaroff, Dwight, "Network Performance Measurement for Real-Time

Multiplayer Mobile Games", *Keynote Presentation for Workshop on Network Measurement (co-located with IEEE Local Computer Networks)*, Edmonton, AB, Canada, September 2014.

Makaroff, D.J. and **Arkles, A.J.**, "MT-WAVE: Profiling Multi-tier Web Applications", Carleton University, April 2012.

Makaroff, D.J. and **Arkles, A.J.**, "MT-WAVE: Profiling Multi-tier Web Applications", Networks Research Group, University of Calgary, August 2010.

Makaroff, D.J., "Scalable Delivery and Admission Control in Media Servers", Workshop Presentation, *Workshop on Content Distribution Networks*, Dagstuhl, Germany, May 2004.

Makaroff, D.J., "Load Balancing and Workload Characterization in eCommerce Environments", Workshop Presentation, *IBM CASCON*, Toronto, ON, Canada, November 2001.

Makaroff, D.J., "How Will Media Delivery Work in the Internet?", Panel   Presentation, *9th International Workshop on Quality of Service (IWQOS)*, Karlsruhe, Germany, June 2001.

Makaroff, D.J., "Multimedia Distribution and Display in High-Speed Networks", Workshop Presentation, *2nd International Symposium on Electronic Commerce (ISEC)*, Hong Kong, April 2001.

Makaroff, D.J., "Network Issues for Video Transmission", Workshop Presentation, *IBM CASCON*, Toronto, ON, Canada, November 1999.

19. Presentations at Non-Archival Conferences

20. Patents Granted or Pending

21. Research Grant Information

Canada First Research Excellence Fund – Designing Crops for Global Food Security Subtheme 3.2 High-Performance Distributed Computing – September 2015 – August 2022 - $50,000 per year. Principal Investigator - Derek Eager.

MITACS Accelerate Grant – January to April 2014 $20,000. Partner organization: ExperienceFirstDesign.com.

NSERC Engage Grant May 2013 - $25,000. Partner organization: ExperienceFirstDesign.com

NSERC Discovery Grant 2011-2016 $14,000 per year. Total of $70,000.

NSERC Bridge Funding 2010-2011 $13,000.

President's NSERC 2009-2010 $9,474.

NSERC Discovery Grant 2004-2009 $18,700/year.

NSERC Industrial Postgraduate Scholarship – Qinxia (Alice) He – 2005-2007

NSERC Industrial Postgraduate Scholarship – Jason Coutu - 2004-2006

NSERC Industrial Postgraduate Scholarship – Fengdi Yang - 2002-2004

NSERC Operating Grant 2000-2003 $17,800/year

Canadian Institute for Telecommunications (CITR) Project Grant: System and Network Performance for Electronic Commerce. Principal Investigator: Johnny Wong, University of Waterloo. Major Project: Enabling Technologies for Electronic Commerce ($15,000 - April 1, 2001 - March 31, 2002)

24.Consulting Work Undertaken:

Greatway Global Communications, (2000 to 2004)

25.Department and College Committees

Ph. D. External Examiner – Carleton University – Muhammed Asif – April 2012
Ph. D. External Examiner – University of Calgary – Emir Halepovic – August 2010

College of Graduate Studies and Research – Academic Programs Committee (2010-2013)
College of Graduate Studies and Research – Awards Committee (2008-2009)
College of Arts and Science - Academic Programs Committee (2006-2007, 2008-2012) – Committee Chair in 2009-2010, 2010-2011, and 2011-2102
College of Arts and Science - Employment Equity Committee (2003 – 2006) co-chair for 2004-2005.

Department of Computer Science – Graduate Committee – Grad Chairperson (2013 – 2015)
  In 2013-2014, chaired 5 PhD defenses.
  In 2014-2015, chaired 3 PhD defenses.
  Researched and prepared guidelines for requirements and admission

standards for students with alternate backgrounds.
Prepared multiple documents for Grad Program review, which was held in March 2015. Hosted review team.

Department of Computer Science – Undergraduate Committee (2012-2013)
Department of Computer Science - Research Seminar Coordinator (2004-2005)
Department of Computer Science – Curriculum Committee (2002 – 2007)
Department of Computer Science - Research Seminar Coordinator (2001-2003)

26. University Committees

University Council – council member-at-large (2005–2007, 2012-2014)
University Council Teaching, Learning and Academic Resources Committee (TLARC) (2013-2014)
TLARC Subcommittee on Evaluation of Teaching (2013-2014)
University Council Academic Support Committee (2012-2013)

27. Professional and Association Offices and Committee Activity Outside University

Association for Computing Machinery (1986 – present)

Web Site Editor ACM Multimedia Conference - 2001

ACM Special Interest Group on Multimedia (SIGMM) 2001 – present

Web Area Editor, Association for Computing Machinery Special Interest Group on Multimedia (ACM SIGMM)   - Editor for Education 2003 - 2006

Web Editor, Association for Computing Machinery Special Interest Group on Multimedia (ACM SIGMM) (November 2000 to November 2003)

IEEE Computer Society (2010 - present)

Conference Program Committees:
   2014-2015
      34th International Performance Computing and Communications Conference (IPCCC 2015) – Nanjing, China, December 2015
      IBM CASCON: Conference of the Centre for Advanced Studies on Collaborative Research (CASCON 2015) – Toronto, Ontario, November 2015.
      40th IEEE Conference on Local Computer Networks (LCN) - Clearwater Beach, FL, October 26-29, 2015
      8th C* Conference on Computer Science and Software Engineering (C3S2E 2015) – Yokohama, Japan – July 2015

25th ACM SIGMM Workshop on Network and Operating Systems Support for Digital Audio and Video (NOSSDAV 2015) - Portland, OR, March 20th, 2015

11th Web Information Systems and Technologies (WEBIST 2015) – Lisbon, Portugal, May 2015

5th International Conference on Pervasive and Embedded Computer and Communication Systems (PECCS 2015) – Angers, France, February 2015

33rd International Performance Computing and Communications Conference (IPCCC 2014) – Austin, TX, December 2014

IBM CASCON 2014 – Toronto, ON, November 2014

2013-2014

IBM CASCON 2014 – Toronto, ON, November 2014

10th International Networks Conference (INC 2014) – Plymouth, UK, July 2014.

19th IEEE International Conference on Networks (ICON 2013) – Singapore, Singapore, December 2013

7th C* Conference on Computer Science and Software Engineering (C3S2E 2014) – Montreal, QC, August 2014

10th Web Information Systems and Technologies (WEBIST 2014) – Barcelona, Spain, April 2014

IBM CASCON 2013 – Toronto,ON, November 2013

2012-2013

CASCON 2013 – Toronto, ON, November 2013

18th IEEE International Conference on Networks (ICON 2012) – Singapore, December 2012

6th C* Conference on Computer Science and Software Engineering (C3S2 2013) – Porto, Portugal, July 2013

2011-2012

9th International Networks Conference (INC 2012) – Port Elizabeth, South Africa, July 2012

5th C* Conference on Computer Science and Software Engineering (C3S2E 2012) – Montreal, QC, June 2012

IEEE Embedded and Ubiquitous Computing (EUC 2011) – Melbourne, Australia, October 2011

2010-2011

2nd ACM Multimedia Systems Conference (MMSYS 2011) – San Jose, CA - February 2011

4th Canadian Conference on Computer Science and Software Engineering (C3S2E) – Montreal, QC, May 2011

2009-2010

8th International Network Conference (INC 2010) – Heidelberg, Germany - July 2010

3rd Canadian Conference on Computer Science and Software Engineering (C3S2E) – Montreal, QC, May 2010

1st ACM Multimedia Systems Conference (MMSYS) – Phoenix, AZ, February 2010

2008-2009
    CASCON 2009 – Toronto, ON, November 2009
    First IEEE WoWMoM Workshop on Hot Topics in Mesh Networking
      (HotMesh 2009) – Kos, Greece, June 2009
    2nd Canadian Conference on Computer Science and Software
      Engineering (C3S2E) – Montreal, QC, May 2009
2007-2008
    ACM Multimedia 2008 – Vancouver, BC, October 2008
    CASCON 2008 – Toronto, ON, October 2008
    7th International Network Conference (INC 2008) – Plymouth, UK, July
      2008
2006-2007
    CASCON 2007 – Toronto, ON, October 2007
2005-2006
    6th International Network Conference (INC 2006) – Plymouth, UK, July
      2006
2004-2005
    5th International Network Conference (INC 2005) - Samos, Greece,
      July 2005
    Multimedia Interactive Protocols and Systems (MIPS 04), Grenoble,
      France, November 2004
2003-2004
    4th International Network Conference (INC 2004), Plymouth UK, July
      2004
    End-to-End Service Differentiation Workshop, Phoenix, AZ, April 2004
2002-2003
    ACM Multimedia Conference, Berkeley, CA, November 2003
    End-to-End Service Differentiation Workshop, Phoenix, AZ, April 2003

Conference Session Chair:
2014-2015
    17th Modeling, Analysis, and Simulation of Wireless and Mobile
      Systems (MSWiM 2014) – Montreal, QC, September 2014
2007-2008
    Passive and Active Measurement (PAM) – Cleveland, OH, May 2008
2006-2007
    CASCON 2006 – Toronto, ON, October 2006
2005-2006
    IEEE Systems, Man, and Cybernetics – Waikaloa, HI, October 2005
    Distributed Multimedia Systems – Banff, AB, September 2005
2004-2005
    MASCOTS 2004 – Volendam, The Netherlands, October 2004
2003-2004
    IASTED International Conference on Internet and Multimedia Systems
      and Applications, Honolulu, HI, August 2003

Refereeing:

2014-2015
  Journals:
    Elsevier Computer Networks – 2 papers
  Conferences/Workshops:
    IEEE LCN 2015 – 6 papers
    C3S2E 2015 – 1 paper
    WEBIST 2015 – 3 papers
    NOSSDAV 2015 – 4 papers
    IBM CASCON 2014 - 4 papers
    IEEE IPCCC 2014 – 6 papers
    PECCS 2015 – 3 papers
  Grants:
    NSERC Discovery Grants – 2 grants
2013-2014
  Journals:
    Elsevier Communication Networks: 2 papers
    IEEE Internet Computing: 1 paper
  Conferences/Workshops:
    CASCON 2013 – 5 papers
    ICON 2013 – 4 papers
    INC 2014 – 0 papers
    C3S2E 2014 – 2 papers
    WEBIST 2014 – 4 papers
  Grants:
2012-2013
  Journals:
    Communication Networks: 1 paper
  Conferences/Workshops:
    ICON 2012 – 3 papers
    C3S2E 2013 – 2 papers
  Grants:
    NSERC Discovery Grant – 1 application
2011-2012
  Journals:
    Communication Networks: 3 papers
    ACM Transactions on Multimedia Computing,
Communications, and Applications (TOMCCAP): 1 paper
    IEEE Transactions on Multimedia: 1 paper
  Conferences/Workshops:
    INC 2012 – 2 papers
    C3S2E 2012 – 2 papers
    EUC 2011 – 2 papers
  Grants:
    NSERC Discovery Grant – 1 application
2010-2011
  Conferences/Workshops:
    C3S2E 2011 – 2 papers

MMSYS 2011 - 4 papers
Grants:
NSERC Discovery Grant: 1 application
2009-2010
Journals:
Data and Knowledge Engineering – 1 paper
Conferences/Workshops:
INC 2010 – 3 papers
C3S2E 2010 – 4 papers
MMSYS 2010 – 5 papers
Grants:
NSERC Discovery Grant – 1 application
NSERC-DVD – 1 application
Tenure/Promotion cases:
Tenure Case – 1 application
2008-2009
Journals:
Internet Computing – 1 paper
Data and Knowledge Engineering Journal – 1 paper
Computer Communications – 1 paper
Transactions on Multimedia Computing, Communications and
Applications (TOMCCAP) – 1 paper
Computer Communications Review – 1 paper
Conferences/Workshops:
HotMesh 2009 – 3 papers
Canadian Conference on Computer Science and Software
Engineering (C3S2E) – 5 papers
CASCON 2009 – 7 papers
2007-2008
Journals:
DKE Journal – 1 paper
Conferences/Workshops:
INC 2008 – 3 papers
ACM Multimedia – 6 papers
CASCON 2008 - 4 papers
Grants:
NSERC Discovery Grants – 1 application
2006-2007
Conferences/Workshops:
CASCON 2007 – 5 papers
Grants:
NSERC Strategic Grants – 1 application
2005-2006
Journals:
Information and Software Technology, 1 paper
Conferences/Workshops:
INC 2006 - 3 papers

Grants:
    NSERC Discovery Grants: 1 application
2004-2005
  Journals:
    ACM Transactions on the Internet (TOIT) - 1 paper
    IEEE Transactions on Computers - 1 paper
    Information and Software Technology, 1 paper
  Conferences/Workshops:
    MIPS 04 - 4 papers
    INC 05 - 3 papers
  Grants:
    NSERC Discovery Grants: 1 application
2003-2004
  Journals:
    Journal of Computer Communications, 3 papers
    Performance Evaluation Journal, 1 paper
  Conferences/Workshops:
    End-to-End Service Differentiation Workshop, 2 papers
    INC 2004 – 6 papers
  Grants:
    NSERC Discovery Grants: 1 application
2002-2003
  Journals:
    Journal of Multimedia Tools and Applications, 1 paper
    Computer Networks Journal, 1 paper
    Information and Software Technology, 2 papers
  Conferences/Workshops:
    End-to-End Service Differentiation Workshop, 2 papers
    ACM Multimedia Conference, 11 papers
  Grants:
    Academic Development Fund, University of Western Ontario, 1
        application
2001-2002
  Journals:
    ACM Multimedia Journal, 1 paper
    Computer Networks Journal, 1 paper
    Information and Software Technology, 1 paper
    IEEE Multimedia Journal, 1 paper
  Conferences/Workshops:
    TOOLS 2002, 1 paper
    CASCON 2002, 1 paper
  Grants:
    NSERC Discovery Grants, 1 application

28. Public and Community Contributions - University Related

Co-Coach - ACM Programming Team, Fall 2010. Regional Contest in
      Saskatoon, SK, October 2010.
Co-Coach - ACM Programming Team, Fall 2009. Regional Contest in
      Saskatoon, SK, October 2009.
Co-Coach - ACM Programming Team, Fall 2008. Regional Contest in
      Saskatoon, SK, October 2008.
Host – Regional ACM Programming Contest (ICPC) – held in Saskatoon,
      SK, October 2006.
Co-Coach - ACM Programming Team, Fall 2006. Regional Contest in
      Saskatoon, SK, October 2006.
Host – Regional ACM Programming Contest (ICPC) – held in Saskatoon,
      October 2005.
Coach - ACM Programming Team, Fall 2005. Regional Contest in
      Saskatoon, SK, October 2005.
Host – Regional ACM Programming Contest (ICPC) – held in Saskatoon,
      October 2004.
Coach - ACM Programming Team, Fall 2004. Regional Contest in
      Saskatoon, SK, October 2004.
Coach - ACM Programming Team, Fall 2003. Regional Contest in
      Lethbridge, AB, November 2003.
Coach - ACM Programming Team, Fall 2002. Regional Contest in
      Lethbridge, AB, November 2002.
Coach - ACM Programming Team, Fall 2001. Regional Contest in
      Lethbridge, AB, November 2001.

Non-University Related

Leadership Team – The Gathering at Broadway – Broadway site of
      Forest Grove Community Church (September 2011-present)
Church Council – Forest Grove Community Church (March 2015-present)
Launch Team – The Gathering at Broadway - Broadway site of
      Forest Grove Community Church (October 2010-August 2011)
Nominations Committee Chairperson, Living Hope Church (November
2005-September 2007)
President - Proclaim! International Canada - (October 2005–January
      2014)
Board Member, Living Hope Church (October 2005-January 2009) –
      board secretary from October 2005 to September 2007.
Temporary Board of Management, Living Hope Church (June 2005-Oct
      2005)
Media Team Leader, Living Hope Church (Oct 2002-July 2007)
Design Team, Living Hope Church (Sept 2002-Sept 2003)
Growth Team. Living Hope Church (April 2002-April 2004)