

Curriculum Vitae  
for

**Dwight Makaroff**  
**Department of Computer Science**  
**University of Saskatchewan**

**1 Personal**

Born: August 27, 1962.

**2 Degrees**

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

**3 Credentials**

**4 Appointment(s) and Promotions (U of S):**

Professor, Tenured, Department of Computer Science, July 2012 to present  
Associate Professor, Tenured, Department of Computer Science, July 2006 to June 2012  
Associate Professor, Tenure-Track, Department of Computer Science, Jul 2001 to June  
2006

**5 Memberships and Affiliations**

5.1 College of Graduate Studies and Research, University of Saskatchewan (July 2001  
to present)

5.2 College of Engineering, University of Saskatchewan (July 2001- June2007, July 2008-  
June 2015)

**6 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

## 7 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)

Sabbatical Leave – July 1, 2015 to June 30, 2016

Google, Inc., Mountain View, CA (July 13/15 – December 11/15)

NICTA/Data 61/CSIRO, Sydney, Australia (January 6/16 – June 28/16)

Sabbatical Leave – July 1, 2021 to June 30, 2022

Collaboration with Mohamed Hefeeda (SFU) and Thomas Kunz (Carleton)

## 8 Recognitions

1986-1988: NSERC Graduate Scholarship

1984-1985: U of Saskatchewan Honours Scholarship

1984: NSERC USRA Summer Student Scholarship

1983-1984: U of S Scholarship

## 9 Teaching Activities

### 9.1 Scheduled Instructional Activity

YEAR	COURSE	INST. TYPE	ENRL.	YIH	YCSH
Summer 2024	CMPT 994.3 Research	Res	2		
Fall 2024			4		
Winter 2025			4		
Spring 2025			4		
Summer 2024	CMPT 996.3 Research	Res	1		
Fall 2024			1		
Winter 2025			1		
Spring 2025			1		
Fall 2024	CMPT 214.3 (09) Programming Principles and Practice	Lec	36	39.0	1404
	CMPT 332.3 (01) Operating Systems Principles	Lec	59	39.0	2301
Winter 2025	CMPT 432.3 Advanced Operating Systems Principles	Lec	29	39.0	1131
Winter 2025	CMPT 832.3 Advanced Operating Systems Principles	Lec	0	39.0	0
Winter 2025	CMPT 865.3 Advanced Parallel and Distributed Systems	Sem	2	39.0	78

Summer 2023	CMPT 994.3 Research	Res	1		
Fall 2023			1		
Winter 2024			1		
Spring 2024			2		
Summer 2023	CMPT 996.3 Research	Res	1		
Fall 2023			1		
Winter 2024			1		
Spring 2024			1		
Fall 2023	CMPT 332.3 (01) Operating Systems Principles	Lec	80	39.0	3120
Winter 2024	CMPT 215.3 (02) Computer Organization and Architecture	Lec	158	39.0	6162
	CMPT 332.3 (02) Operating Systems Principles	Lec	19	39.0	741
	CMPT 434.3 (04) Computer Networks	Lec	29	39.0	1131
Summer 2022	CMPT 994.3 Research	Res	0		
Fall 2022			1		
Winter 2023			1		
Spring 2023			1		
Summer 2022	CMPT 996.3 Research	Res	1		
Fall 2022			1		
Winter 2023			2		
Spring 2023			2		
Fall 2022	CMPT 332.3 (01) Operating Systems Principles	Lec	36	39.0	1404
	CMPT 332.2 (03) Operating Systems Principles	Lec	52	39.0	2028
Winter 2023	CMPT 432.3 Advanced Operating Systems Principles	Lec	13	39.0	507
Winter 2023	CMPT 832.3 Advanced Operating Systems Principles	Lec	2	39.0	78
Winter 2023	CMPT 865.3 Advanced Parallel and Distributed Systems	Sem	5	15.0	75
Summer 2021	CMPT 994.3 Research	Res	6		
Fall 2021			3		
Winter 2022			3		
Spring 2022			1		
Summer 2021	CMPT 996.3 Research	Res	2		
Fall 2021			2		
Winter 2022			1		
Spring 2022			1		
Summer 2020	CMPT 994.3 Research	RES	6		
Fall 2020			6		

Winter 2021			6		
Spring 2021			6		
Summer 2020	CMPT 996.3 Research	Res	2		
Fall 2020			2		
Winter 2021			2		
Spring 2021			2		
Fall 2020	CMPT 332.3 Operating Systems Principles	Lec	64	39.0	2496
Winter 2021	CMPT 433.3 Network and System Administration	Lec	7	39.0	399
Summer 2019	CMPT 994.3 Research	RES	8		
Fall 2019			7		
Winter 2020			6		
Spring 2020			6		
Summer 2019	CMPT 996.3 Research	Res	1		
Fall 2020			2		
Winter 2021			2		
Spring 2021			2		
Fall 2019	CMPT 332.3 Operating Systems Principles	Lec	86	39.0	3354
Winter 2020	CMPT 432.3 Advanced Operating Systems Principles	Lec	3	39.0	117
Winter 2020	CMPT. 865.3 Parallel and Distributed Systems	Sem	3	39.0	117
Fall 2019/Winter 2020	CMPT 400.3 Research Methods in Computer Science				
	Course Coordinator	Sem	15		
Fall 2019/Winter 2020	CMPT 405.3 Software Engineering Project				
	Course Coordinator	Sem	4		
Fall 2019/Winter 2020	CMPT 400.3 Research Methods in Computer Science				
	Supervisor	Res	2		
	Kale Yuzik - Blockchain-based Security for Heterogeneous IoT Systems				
	Braunson Mazoka – Distributed Processing Performance of Multi-Spectral Datasets Using a Sparse Index				
Fall 2018	CMPT 994.3 Research	Res	10		
Winter 2019			9		
Spring 2019			8		
Summer 2019			8		
Fall 2018	CMPT 996.3 Research	Res	2		
Winter 2019					
Spring 2019					
Summer 2019					
Fall 2018	CMPT 332.3 Operating Systems Principles	Lec	71	39.0	2769

Winter 2019	CMPT 432.3 Advanced Operating Systems Principles	Lec	9	39.0	351
Winter 2019	CMPT 832.3 Advanced Operating Systems Principles	Lec	1	39.0	39
Winter 2019	CMPT 865.3 Advanced Distributed Systems				
Fall 2018/Winter 2019	CMPT 400.3 Research Methods in Computer Science				
	Course Coordinator	Sem	11		
Fall 2018/Winter 2019	CMPT 405.3 Software Engineering Project				
	Course Coordinator	Sem	4		
Fall 2017	CMPT 994.3 Research	Res	9		
Winter 2018					
Spring 2018					
Summer 2018					
Fall 2017	CMPT 996.3 Research	Res	3		
Winter 2018					
Spring 2018					
Summer 2018					
Fall 2017	CMPT 332.3 Operating Systems Principles	Lec	79	39.0	3081
Winter 2018	CMPT 865.3 Advanced Parallel and Distributed Systems	Sem 4		39.0	351
Winter 2018	CMPT 433.3 System and Network Administration	Lec	5	39.0	195
Fall 2017/Winter 2018	CMPT 405.3 Software Engineering Project				
		Res	1		
	Peggy Anderson – Picking Raspberries in the Field				
Fall 2017/Winter 2018	CMPT 400.3 Research Methods in Computer Science				
	Course Coordinator	Sem	6		
Fall 2017/Winter 2018	CMPT 405.3 Software Engineering Project				
	Course Coordinator	Sem	7		
2016 T1&T2	CMPT 994.3 Research	Res	6		
2016 T1&T2	CMPT 996.3 Research	Res	3		
2016 T1	CMPT 332.3 Operating Systems Principles	Lec	80	39.0	3120
2016 T1	CMPT 865.3 Advanced Parallel and Distributed Systems	Sem 9		39.0	351
2016 T2	CMPT 432.3 Advanced Operating Systems Principles	Lec	10	39.0	390
2016 T2	CMPT 815.3 Computer Systems Performance Evaluation	Lec 11		39.0	429
2016 T2	CMPT 832.3 Advanced Operating Systems Principles	Lec	2	39.0	78
2015 T1&T2	CMPT 880.3 Research Methods and Topics I, co-supervised 3 students	Res	3		
	Philip Dueck – Feasibility of Applying Time Series Forecasting Techniques to Network Jitter (co-supervised with David Callele)				
	Habib Sabiu – Simulation-based Analysis of Energy Savings in Data Center Clusters (co-supervised with Winfried Grassmann)				

Olowabi Adekoya – Performance Evaluation for Iterative Operation on Apache Spark (co-supervised with Derek Eager)

2015 T1&T2 CMPT 890.3 Research Methods and Topics II, Res 1  
supervised 1 student

Babatunde Olabenjo – Simulation-based Performance Evaluation of Adapted DMAMAC Protocol in Wireless Sensor Networks

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	Lec	10	39.0	390

2013 T2	CMPT 865.3 Advanced Parallel and Distributed Systems	Sem	3	39.0	117
---------	--	-----	---	------	-----

2013 T1&T2 CMPT 880.3 Research Methods and Topics I, Res 1  
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 (co-supervised with Derek Eager)

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	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	Res	10			
	course co-coordinator.					
2011 T1&T2	CMPT 405.3 Software Engineering Project	Res	3			
	course co-coordinator.					
2010 T1	CMPT 332.3 Principles of Operating Systems	Lec	48	39.0	1872	
2010 T2	CMPT 432.3 Advanced Operating Systems	Lec	9	39.0	351	
	Principles					
2010 T2	CMPT 832.3 Advanced Operating Systems	Lec	1	39.0	39	
	Principles					
2010 T2	CMPT 865.3 Advanced Parallel and Distributed	Sem	5	39.0	195	
	Systems					
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	Res	9			
	course co-coordinator.					
2010 T1&T2	CMPT 405.3 Software Engineering Project	Res	4			
	course co-coordinator.					
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	Lec	6	39.0	234	
	Principles					
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	Res	2			
	course co-coordinator.					
2009 T1&T2	CMPT 405.3 Software Engineering Project	Res	4			
	course co-coordinator.					
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	Lec	1	39.0	39	
	Principles					
2008 T2	CMPT 865.3 Advanced Parallel and Distributed	Sem	3	39.0	117	
	Systems					
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	Res	13		
	– course co-coordinator.				
2008 T1&T2	CMPT 405.3 Software Engineering Project	Res	4		
	– course co-coordinator.				
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.				
2007 T1&T2	CMPT 994.3 Research	Res	1		
2007 T1&T2	CMPT 996.3 Research	Res	1		
2006 T1	CMPT 214.3 Programming Principles and Practice	Lec	82	39.0	3198
2006 T1	CMPT 332.3 Operating Systems Principles	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	Res	10		
	course coordinator.				
2006 T1&T2	CMPT 405.3 Software Engineering Project	Res	7		
	course coordinator.				
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		
2005 T1	CMPT 332.3 Operating Systems Principles	Lec	44	39.0	1716
2005 T2	CMPT 432.3 Advanced Operating Systems	Lec	7	39.0	273
2005 T2	CMPT 865.3 Advanced 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, co-supervised two students, was second reader for two students Qinxia He (880) – Peer-to-Peer Media Streaming Jie Feng (890) – Sensor Network Aggregation	Res	2		
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 supervised two students, was second reader for one student. Jason Coutu – Parallel Hardware/Software Co-simulation Nakul Aloni – Infrastructure vs Ad Hoc Media Streaming	Res	2		
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 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	Res	3		
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 supervised 2 students: Logan Peters - MPEG-2 Video Client Implementation Ryan Thompson - User Account Management	Res	2		
2001 T1&T2	CMPT 880 Research Methods and Topics I supervised one student and was second reader for one student Qing Wang – Workload Characterization in e-Commerce	Res	1		
2001 T1&T2	CMPT 990.3 Department Seminar Coordinator				

## 9.2 Unscheduled Teaching Activity

## 9.3 Course and Program Development

CMPT 214: Programming Principles and Practices. Developed course topics and assignments with David Callee 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.

## 9.4 Teaching Materials

## 9.5 Other Teaching Related Activities

Attended Gwenna Moss Learning Institute Workshops

1. Bloom, The Next Generation and Learning Objectives for Today's Generation of Students. (May 2007)
2. Problem Solving in the Sciences. (May 2007)

## 10 Supervision and Advisory Activities

10.1 Undergraduate Student Supervision (Summer Student Research and Research Projects– NSERC USRA and NSERC Engage, P2IRC, MITACS Accelerate)

Name	Degree	Department	Co-Supervisor	Date Supervised
<b>Industrial Partner</b>				
Connor Tamme	B.Sc. (Hons)	Computer Science	Dept, USRA	May-August 2025
Connor Tamme	B.Sc. (Hons)	Computer Science	NSERC USRA	May-August 2024
Corinn Zieglgansberger	B.Sc. (Hons)	Computer Science	NSERC USRA	May-August 2023
Hunter McConnell	B. Sc.	Computer Science	P2IRC	May- August 2022
Victoria Guenter	B. Sc. (Hons)	ECE/Computer Science	NSERC USRA	
			Derek Eager	May-August 2021
Arjot Singh Rai	B. Sc. (Hons)	Computer Science	Derek Eager	May-August 2020
Eric Redekopp	B. Sc.	Computer Science	NSERC USRA	May-August 2020
Jian Su	B. Sc. (Hons)	Computer Science	P2IRC	May-August 2019
Jean-Baptiste Jouband	B. Sc.	Computer Science	P2IRC	May-August 2018
Peggy Anderson	B. Sc. (Hons)	Computer Science	P2IRC	May-August 2018
Jarrood Pas	B. Sc. (Hons)	Computer Science	P2IRC	May-August 2017
Carl Hofmeister	B. Sc.	Computer Engineering	P2IRC	May-August 2017
Ji Hua	B. Sc. (Hons)	Computer Science	P2IRC	May-August 2016

Kyle Siemens	B. Sc. (Hons)	Computer Science	P2IRC	May-August 2016
Dylan Flowers	B. Sc.	Computer Science	Experience First Design	June-August 2014
Nigel Jurgens	B. Sc. (Hons)	Computer Science	MITACS Accelerate	Experience First Design
				Jan- June 2014
Chad Hansen	B. Sc. (Hons)	Computer Science	NSERC USRA	May 2014
Chad Hansen	B. Sc. (Hons)	Computer Science	NSERC Engage	May-August 2013
			Experience First Design	
Nigel Jurgens	B. Sc. (Hons)	Computer Science	NSERC Engage	May-August 2013
			Experience First Design	
Spencer Clark	B. Sc. (Hons)	Computer Science	U of S USRA	May-August 2011
Joseph Eremondi	B. Sc. (Hons)	Computer Science	Derek Eager	May-August 2010
			NSERC USRA	
Spencer Clark	B. Sc. (Hons)	Computer Science		May-August 2010
Jeremy Guebert	B. Sc. (Hons)	Computer Science	NSERC USRA	May-August 2009
Carl Norum	B. Sc. (Hons)	Computer Science	NSERC USRA	May-August 2003

## 10.2 Graduate Student Supervision

<b>Name</b>	<b>Degree</b>	<b>Department</b>	<b>Co-Supervisor</b>	<b>Date Supervised</b>
Steven Otero	Ph. D.	Computer Science	Derek Eager	2023 – present
Connor Tamme	M. Sc.	Computer Science		2025 – present
Brian Denton	M. Sc.	Computer Science		2025 – present
Troy Rosin	M. Sc.	Computer Science		2024 – present
Jacob Peckham	M. Sc.	Computer Science	Steven Rayan	2022 – present

## 10.3 Graduate Theses Supervised

<b>Name</b>	<b>Degree</b>	<b>Department</b>	<b>Co-Supervisor</b>	<b>Date Supervised</b>
Shahrzad Golestsani Najafabadi	Ph. D.	Computer Science		Sep. 2019- Sep. 2024
Alireza Montazeri Ghahjavarestani	Ph. D.	Computer Science		Jan. 2012 – Sep. 2018.
Jie Feng	Ph. D.	Computer Science	Derek Eager	Sep. 2003 - June 2010.
Srishti Mouli	M. Sc.	Computer Science	Derek Eager	Sep 2018 – Mar 2022.
Jenia Jeba	M. Sc.	Computer Science	Derek Eager	Sep 2018 – Feb 2022.
Noah Orensa	M. Sc.	Computer Science	Derek Eager	Sep 2019 - Aug 2021.
Philip Dueck	M. Sc.	Computer Science	David Callele	Sep 2015 – Aug 2021.
Kai Langen	M. Sc.	Computer Science		Sep 2017 – Aug 2021.
Fatemeh Zare Abandankeshi	M. Sc.	Computer Science	Kevin Stanley	Sep. 2017 – Jan. 2020.
Tonghao Chen	M. Sc.	Computer Science	Derek Eager	Sep. 2017 – Aug. 2019.
Mohamed Rashid Chowdhury	M. Sc.	Computer Science	Derek Eager	Sep. 2016 – Sep. 2019.
Faheem Abrar	M. Sc.	Computer Science	Kevin Schneider	Sep. 2016 – Apr. 2019.
Fadi Al Mobayed	M. Sc.	Computer Science	Derek Eager	Sep. 2016 – Sep. 2018.
Habib Sabiu	M. Sc.	Computer Science	Winfried Grassmann	

Owolabi Adekoya	M. Sc.	Computer Science	Derek Eager	Sep. 2015 - July 2018.
Zhihong Zhuo	M. Sc.	Computer Science	Derek Eager	Sep. 2015 - July 2018.
Anthony Arkles	M. Sc.	Computer Science		Sep. 2013 – Feb. 2016.
Wojciech Quibell	M. Sc.	Computer Science		Sep. 2009 - June 2015.
Shaiful Chowdhury	M. Sc.	Computer Science		Sep. 2008 – Feb. 2015.
Khadija Rasul	M. Sc.	Computer Science		Sep. 2011 – Aug. 2013.
Jagmohan Chauhan	M. Sc.	Computer Science	Winfried Grassmann	Sep. 2011 – Aug. 2013.
				Jan. 2011 - June 2013.
Tanjil Hossian	M. Sc.	Computer Science	Derek Eager	Sep. 2010 – Dec. 2012.
Jason Coutu	M. Sc.	Computer Science		Sep. 2003 – Sep. 2009.
Justice Daka	M. Sc.	Computer Science		Sep. 2002 – June 2007.
Qinxia (Alice) He	M. Sc.	Computer Science	Derek Eager	Sep. 2004 - June 2007.
Fujian Liu	M. Sc.	Computer Science		Jan. 2002 – Oct. 2005.
Fengdi Yang	M. Sc.	Computer Science		Sep. 2002 – Aug. 2005.
Qing Wang	M. Sc.	Computer Science		Jan. 2002 – Oct. 2004.
Lateef Ogunleye	M. Sc.	Computer Science		Sep. 2001 - May 2003.

#### 10.4 Post-Doctoral Supervision

#### 10.5. Staff Supervision

Noah Orensa      Mitacs Accelerate      Ag Exchange      Mar. 2022 – Aug. 2023

#### 10.6 Other Advisory Activities

#### Thesis Examining Committee (outside department activity role of External Examiner)

Name	Degree	Department	Supervisor(s)	Dates
Ahmed Mabrouk	M.Sc.	Computer Science	supervised by Nadeem Jamali	March 2025
Norah Ridley	M.Sc.	Computer Science	supervised by Natalia Stakhanova	December 2024
Ekaterina Ivanova	M.Sc.	Computer Science	supervised by Natalia Stakhanova	August 2024
Erik Andvaag	M.Sc.	Computer Science	supervised by Ian Stavness	November 2023
Flor Nehazadian	M.Sc.	Computer Science	supervised by Natalia Stakhanova	August 2023
Rabiul Awal	M.Sc.	Computer Science	supervised by Ian Stavness,	Nov. 2022
Atefeh Omidkar	M.Sc.	Electrical and Computer Engineering,	supervised by Brian Berscheid,	Feb. 2023
Winchell Qian	Ph. D.	Computer Science	Nathaniel Osgood	Sep 2018- 2022.
Kawser Nafi	Ph. D.	Computer Science	Chanchal Roy	Nov. 2017 – present.
Ahmad Rahman	M. Sc.	Computer Science	Nadeem Jamali	Nov. 2017 – present.
Bo Pu	M. Sc.	Computer Science	Nathaniel Osgood	Mar 2019 – Apr 2019
Aich Shubra	M. Sc.	Computer Science	Ian Stavness	Mar. 2019 – Apr. 2019.
Biswajit Paul	M. Sc.	Electrical/Computer Engineering	Ha Nguyen	December 2018.
Muhammad Asaduzzaman				

	Ph. D. Computer Science	Chanchal Roy Sep. 2017 – Jan. 2018.
Osagie Osemwegi	M. Sc. Computer Science	Kevin Schneider
Tuhin Paul	Ph. D. Computer Science	Kevin Stanley Jan. 2017 - April 2017.
Zenja Ivkovic	M. Sc. Computer Science	Kevin Stanley Jan. 2015 – Mar. 2017.
		Carl Gutwin Jan. 2016 – Sep. 2016.
		Ian Stavness
Yuntao Mei	M. Sc. Computer Science	Derek Eager July 2015 - July 2016.
Dylan Knowles	M. Sc. Computer Science	Kevin Stanley July 2014 – Nov. 2014.
		Nathaniel Osgood
Amin Tavassolian	M. Sc. Computer Science	Carl Gutwin Aug 2013 – Feb. 2014.
		Kevin Stanley
Michael Bullock	M. Sc. Computer Science	Derek Eager July 2013 – Jan. 2014.
Md. Nazmul Hasan	M. Sc. Computer Science	Derek Eager July 2013 – Jan. 2014.
Md. Aminul Islam	M. Sc. Computer Science	Derek Eager July 2012 – Jan. 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 January 2012.
		Kevin Stanley
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 August 2010.
		Nathaniel Osgood
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 April 2010.
		Kevin Stanley
Umesh Gyawali	M. Sc. Electrical/Computer Engineering	
		Carl McCrosky Feb. 2009.
Lina (Leonard) Fang	M. Sc. Electrical/Computer Engineering	
		David Klymyshyn June 2007.
Qing Zhu	M. Sc. Computer Science	Derek Eager Apr. 2007.
Hyun Hoi (James) Kim	M. Sc. Computer Science	Carl Gutwin Feb. 2007.
Sajjad Rahaman	M. Sc. Electrical/Computer Engineering	
		David Dodds Dec. 2006.
Adeniyi Onasanya	M. Sc. Computer Science	Winfried Grassmann
		Apr. 2005.
Lichun Ji	M. Sc. Computer Science	Ralph Deters Sep. 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 Feb. 2004.
Dongmei Zhao	M. Sc. Electrical/Computer Engineering	
		David Klymyshyn Feb. 2004.
Akihiro Tagachi	M. Sc. Electrical/Computer Engineering	
		Kunio Takaya Dec. 2003.
Tianbo Kuang	M. Sc. Computer Science	Carl McCrosky Nov. 2003.
Olumuyiwa Oni	M. Sc. Computer Science	Winfried Grassmann Aug. 2003.
Jayakumar Srinivasan	M. Sc. Computer Science	Derek Eager June 2003.
Jason Hill	M. Sc. Computer Science	Carl Gutwin Mar. 2003.

Raja Epsilon  
Lixin Wang

M. Sc. Computer Science  
M. Sc. Computer Science

Carl McCrosky Feb. 2003.  
Rick Bunt Nov. 2002.

Students withdrawn from program:

Name	Degree	Department	Co-Supervisor	Date Supervised
Babatunde Olabenjo	Ph. D.	Computer Science		2015-2022
Waqas Rehman	Ph. D.	Computer Science	Nadeem Jamali	2017- 2019
Marcus Csaky	Ph. D.	Computer Science	Matthew Links	2015-2017
Khadija Rasul	Ph. D.	Computer Science	Kevin Stanley	2016
Peggy Anderson	M.Sc.	Computer Science		2018-2022
George Biswas	M. Sc.	Computer Science		2006-2013
Dana Madsen	M. Sc.	Computer Science		2005-2010
Dylan Griffiths	M. Sc.	Electrical/Computer Engineering		
			Carl McCrosky	2008-2011

## 11 Books and Chapters in Books

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

**Submitted:**

**Accepted:**

**Published:**

**12.1** Harini Kolamunni\*, Kanchana Thilakarathna, Diego Perino, **Dwight Makaroff** and Aruna Seneviratne, "Seamless Resource Sharing in Wearable Networks by Application Function Virtualization," *IEEE Transactions on Mobile Computing*, Volume 18, Issue 6, pp. 1393-1400, June 2019.

**12.2** Harini Kolamunni\*, Jagmohan Chauhan, Yining Hu, Kanchana Thilakarathna, Diego Perino, **Dwight Makaroff** and Aruna Seneviratne, "Are Wearables Ready for Secure and Direct Internet Communication?," *ACM GetMobile: Mobile Computing and Communications*, Volume 21, Issue 3, pp. 5-10, 2017, ACM Press, New York, NY.

**12.3** Shaiful Alam Chowdhury and **Dwight Makaroff\***, "Category-Based YouTube Request Pattern Characterization," *WEBIST 2013 (Selected Papers), Lecture Notes in Information Business Processing*, Karl-Heinz Krempels and Alexander Stockey eds., Volume 189, pp. 154-169, 2014, Springer-Verlag. (Extended version of publication 14.8, with some new results and feedback from conference presentation included)

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

**12.5 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.

**12.6 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.

**12.7 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 Artistic Works**

### **14 Refereed Conference Publications – Accepted/Published**

#### **FULL PAPERS IN CONFERENCES/STANDALONE WORKSHOPS**

##### **Accepted:**

##### **Published:**

**14.1 Jacob Peckham\***, **Dwight Makaroff** and Steven Rayan, "Asynchronous Telegate and Teledata Protocols for Distributed Quantum Computing", *2024 IEEE 10th World Forum on Internet of Things (WF-IoT)*, pp. 1-6, Ottawa, ON, Canada, November 2024.

**14.2 Shahrzad Golestani\*** and **Dwight Makaroff**, "Device-Specific Anomaly Detection Models for IoT Systems," *2024 IEEE Conference on Communications and Network Security (CNS)*, Taipei, Taiwan, pp. 1-6, October 2024.

**14.3 Shahrzad Golestani\*** and **Dwight Makaroff**, "Exploring Unsupervised One-Class Classifiers for Lightweight Intrusion Detection in IoT Systems," *2024 20th International Conference on Distributed Computing in Smart Systems and the Internet of Things (DCOSS-IoT)*, Abu Dhabi, United Arab Emirates, pp. 234-238, May 2024.

**14.4 Noah Orensa\***, Derek Eager and **Dwight Makaroff**, "A unified extensible architecture for efficient distributed analytics", *IBM CASCON 2021*, pages 123-132, Toronto, Canada (held virtually), November 2021.

**14.5 Kale Yuzik\*** and **Dwight Makaroff**, "Blockchain-based security for Heterogeneous IoT Systems," *IBM CASCON 2020*, pages 63-72, Toronto, Canada (held virtually), November 2020.

- 14.6 Kai Langen\***, Ketan Mayer-Patel and **Dwight Makaroff**, “Chroma Prediction for Low-Complexity Distributed Video Encoding,” *2020 Fourth International Conference on Multimedia Computing, Networking and Applications*, pages 16-24, Valencia, Spain (Held virtually), October 2020.
- 14.7 Tonghao Chen**, Derek Eager and **Dwight Makaroff\***, “Efficient Image Transmission Using LoRa Technology In Agricultural Monitoring IoT Systems,” *12<sup>th</sup> IEEE International Conference on Internet of Things (iThings 2019)*, pages 1-8, Atlanta, GA, July 2019 (26% acceptance rate).
- 14.8 Babatunde Olabenjo** and **Dwight Makaroff**, “Information Leakage in Wearable Applications,” *SpaCCS 2019: 12 International Conference on Security, Privacy and Anonymity in Computation, Communication and Storage*, pages 211-224, Atlanta, GA, July 2019 (20.1% acceptance rate)
- 14.9 Alireza Montazeri** and **Dwight Makaroff\***, “Optimal Cache Budget Distribution for Hierarchical ICN Networks,” *22nd Conference on Innovation in Clouds, Internet and Networks and Workshops (ICIN 2019)*, pages 336-343, Paris, France, February, 2019 (31.3% acceptance rate).
- 14.10 Owolabi Adekoya**, **Habib Sabiu**, Derek Eager, Winfried Grassmann and **Dwight Makaroff\***, “A Case Study of Spark Resource Configuration and Management for Image Processing Applications,” *IBM CASCON 2018*, pages 18-29, Toronto, ON, Canada, October 2018, (34% acceptance rate).
- 14.11 Alireza Montazeri**, Nicholas Beaton, and **Dwight Makaroff\***, “LRU-2 vs. 2-LRU: An Analytical Study,” *In Proceedings of the 43<sup>rd</sup> Local Computer Networks Conference (LCN 2018)*, Chicago, IL, pages 1-8, October 2018 (29% acceptance rate).
- 14.12 Harini Kolamunna\***, Jagmohan Chauhan, Diego Perino, Kanchana Thilakarathna, **Dwight Makaroff**, and Aruna Seneviratne, “Are Wearables Ready for HTTPS? On the Potential of Direct Secure Communication on Wearables,” *In Proceedings of the 42<sup>nd</sup> Local Computer Networks Conference (LCN 2017)*, pages 321-329, Singapore, Singapore, October 2017 (28.4% acceptance rate).
- 14.13 Harini Kolamunna\***, Yining Hu, Diego Perino, Kanchana Thilakarathna, **Dwight Makaroff**, Xinlong Guan, and Aruna Seneviratne, “AFV: enabling application function virtualization and scheduling in wearable networks,” *In Proceedings of the 2016 ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp '16)*, pages 981-991, Heidelberg, Germany, September 2016 (26% acceptance rate).
- 14.14 Harini Kolamunna\***, Yining Hu, Diego Perino, Kanchana Thilakarathna, **Dwight J. Makaroff**, Xinlong Guan and Aruna Seneviratne, “AFit: adaptive fitness tracking by application function virtualization,” *In Proceedings of the 2016 ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp '16)*, Demo Track, pages 309-312, Heidelberg, Germany, September 2016.
- 14.15 Jagmohan Chauhan**, **Dwight Makaroff\*** and Winfried Grassmann, “Simulation and Performance Evaluation of the Hadoop Capacity Scheduler,” *IBM CASCON 2014*, pages 163-177, Toronto, ON, Canada, November 2014 (31% acceptance rate).



- 14.16 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).
- 14.17 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).
- 14.18 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.
- 14.19 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)
- 14.20 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)
- 14.21 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)
- 14.22 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)
- 14.23 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).
- 14.24 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)
- 14.25 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)
- 14.26 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)

- 14.27 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)
- 14.28 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)
- 14.29 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.
- 14.30 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)
- 14.31 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.
- 14.32 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.
- 14.33 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)
- 14.34 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)
- 14.35 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).
- 14.36 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.
- 14.37 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).

- 14.38**     **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.
- 14.39**     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
- 14.40**     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.
- 14.41**     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.
- 14.42**     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.
- 14.43**     **Dwight J. Makaroff** and Derek L. Eager\*, “Disk Cache Performance for Distributed Systems,” *10<sup>th</sup> International Conference on Distributed Computing Systems (ICDCS)*, Paris, France, pp. 212-219, June 1990.

#### FULLY-REFEREED SHORT PAPERS

- 14.44**     **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.
- 14.45**     **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).

#### FULLY REFEREED PAPERS IN CONFERENCE WORKSHOPS

- 14.46**     **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 *Local Computer Networks*, pp. 166-174, Clearwater Beach, FL, October 2015.
- 14.47**     **Jagmohan Chauhan** and **Dwight Makaroff\***, “Performance Evaluation of Video-On-Demand in Virtualized Environments: The Client Perspective,” *Proceedings of the 6<sup>th</sup> International Workshop on Virtualization Technologies in Distributed Computing (co-located with 21<sup>st</sup> ACM International Symposium on High-Performance Parallel and Distributed Computing (HPDC 2012))*, Delft, The Netherlands, pp. 29-36, June 2012. (35% acceptance rate).

- 14.48 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).

#### REFEREED POSTERS IN CONFERENCES/WORKSHOPS

- 14.49 Alireza Montareri and Dwight Makaroff**, “Geographically-Distinct Request Patterns for Caching in Information-Centric Networks,” *Proceedings of the 42<sup>nd</sup> Local Computer Networks Conference (LCN 2017)*, pp. 579-582, Singapore, Singapore, October 2017.
- 14.50 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 Workshop (NetGames 2013)*, pp. 1-2, Denver, CO, December 2013.
- 14.51 Jagmohan Chauhan, Dwight Makaroff\*** and Tony Arkles, “VM Clock Synchronization Measurements,” *30<sup>th</sup> IEEE International Performance Computing and Communications Conference (IPCCC)*, Orlando, FL, pp. 1-2, November 2011. (44% poster submission acceptance rate).
- 14.52 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.

### 15 Presentations

#### 15.1 Invited Presentations

- 15.1.1 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, Canada, September 2014.
- 15.1.2 Makaroff, D.J. and Arkles, A.J.**, “MT-WAVE: Profiling Multi-tier Web Applications,” Carleton University, April 2012.
- 15.1.3 Makaroff, D.J. and Arkles, A.J.**, “MT-WAVE: Profiling Multi-tier Web Applications,” Networks Research Group, University of Calgary, August 2010.
- 15.1.4 Makaroff, D.J.**, “Scalable Delivery and Admission Control in Media Servers,” Workshop Presentation, *Workshop on Content Distribution Networks*, Dagstuhl, Germany, May 2004.
- 15.1.5 Makaroff, D.J.**, “Load Balancing and Workload Characterization in eCommerce Environments,” Workshop Presentation, *IBM CASCAN*, Toronto, Canada, November 2001.
- 15.1.6 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.

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

**15.1.8 Makaroff, D.J.**, “Network Issues for Video Transmission,” Workshop Presentation, *IBM CASCAN*, Toronto, Canada, November 1999.

## **15.2 Contributed Presentations**

**15.2.1** Device-Specific Anomaly Detection Models for IoT Systems," *2024 IEEE Conference on Communications and Network Security (CNS)*, Taipei, Taiwan, October 2024

**15.2.2** Exploring Unsupervised One-Class Classifiers for Lightweight Intrusion Detection in IoT Systems," *2024 20th International Conference on Distributed Computing in Smart Systems and the Internet of Things (DCOSS-IoT)*, Abu Dhabi, United Arab Emirates, May 2024

**15.2.3** “Information Leakage in Wearable Applications,” *SpaCCS 2019: 12 International Conference on Security, Privacy and Anonymity in Computation, Communication and Storage*, Atlanta, GA, July 2019.

**15.2.4** “Optimal Cache Budget Distribution for Hierarchical ICN Networks,” *22nd Conference on Innovation in Clouds, Internet and Networks and Workshops (ICIN 2019)*, Paris, France, February 2019.

**15.2.5** “A Case Study of Spark Resource Configuration and Management for Image Processing Applications,” *IBM CASCAN 2018*, Toronto, Canada, October 2018.

**15.2.6** “LRU-2 vs. 2-LRU: An Analytical Study,” *43<sup>rd</sup> Local Computer Networks Conference (LCN 2018)*, Chicago, IL, October 2018.

**15.2.7** “Hybrid Community-Based Forwarding: A Complete Energy Efficient Algorithm for Pocket Switched Networks,” *9th IEEE Workshop on Network Measurements (WNM 15)*, Co-located with *Local Computer Networks*, Clearwater Beach, FL, October 2015.

**15.2.8** “Simulation and Performance Evaluation of the Hadoop Capacity Scheduler,” *IBM CASCAN 2014*, Toronto, Canada, November 2014

**15.2.9** “Category-based User Interaction with Online User-Generated Videos: Workload Characterization,” *IBM CASCAN 2014 Emerging Technologies Track*, Toronto, Canada, November 2014

**15.2.10** “Performance Evaluation of Yahoo! S4: A First Look,” *Seventh International IEEE Conference on P2P, Parallel, Grid, Cloud and Internet Computing (3PGCIC)*, Victoria, Canada, November 2012.

**15.2.11** “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, May 2010.

**15.2.12** “Mixed Reliability Video Streaming,” *IEEE Symposium on Wireless and Mobile Multimedia 2008 (WoWMoM)*, Newport Beach, CA, June 2008.

**15.2.13** “Asynchronous Data Aggregation for Real-time Monitoring in Sensor Networks,” *IFIP Networking 2007*, Atlanta, GA, May 2007.

**15.2.14** “On Teaching to the Masses and the Masters: Competing Requirements for Undergraduate Education,” *Western Canadian Conference on Computing Education (WCCCE)*, Calgary, AB, Canada, May 2006.

**15.2.15** “Teaching Requirements Engineering to an Unsuspecting Audience,” *Proceedings of the 37th ACM SIGCSE Technical Symposium on Computer Science Education*, Houston, TX, March 2006.

- 15.2.16 “Classifying E-commerce Workloads under Dynamic Caching,” *IEEE Systems, Man, and Cybernetics*, Waikaloa, HI, October 2005.
- 15.2.17 “Disk Performance and VBR Admission Control for Media Servers,” *Distributed Multimedia Systems*, Banff, AB, Canada, September 2005.
- 15.2.18 “Database Server Workload Characterization in an E-Commerce Environment,” *IEEE/ACM MASCOTS 2004*, Volendam, The Netherlands, October 2004.
- 15.2.19 “Workload Characterization for an E-commerce Web Site,” *CASCON 2003*, Toronto, ON, Canada, October 2003.
- 15.2.20 “A Comparison of Continuous Media Stream Proxy Caching Policies,” *7th IASTED International Conference on INTERNET AND MULTIMEDIA SYSTEMS AND APPLICATIONS - IMSA 2003*, Honolulu, HI, August 2003.
- 15.2.21 “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, October 1999,
- 15.2.22 “A Comparison of VBR Disk Scheduling Algorithms For Continuous Media File Servers,” *ACM Multimedia*, Seattle, WA, November 1997.
- 15.2.23 “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, Jan 1996.
- 15.2.24 “Disk Cache Performance for Distributed Systems,” *10<sup>th</sup> International Conference on Distributed Computing Systems (ICDCS)*, Paris, France, June 1990.

### 15.3 Poster Presentations

#### 15.3.1 Peer Reviewed/Invited

- 15.3.1.1 **Alireza Montazeri** and **Dwight Makaroff**, “Geographically-Distinct Request Patterns for Caching in Information-Centric Networks,” *42<sup>nd</sup> Local Computer Networks Conference (LCN 2017)*, Singapore, Singapore, October 2017.
- 15.3.1.2 **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)*, Denver, CO, December 2013.
- 15.3.1.3 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.

#### 15.3.2 Local Events

- 15.3.2.1 **Faheem Abrar** and **Dwight Makaroff**, “Parallelizing GWAS Applications in GRID/Cluster Environments,” Department of Computer Science Research Fest, October 2018.
- 15.3.2.2 **Kai Langen** and **Dwight Makaroff**, “Recovering DVC Chroma Components Via Colourization,” Department of Computer Science Research Fest, October 2018.
- 15.3.2.3 **Tonghao Chen**, Derek Eager and **Dwight Makaroff**, “Long-Range Midweight Data Acquisition using LoRa Based Chain and Mesh Network,” Department of Computer Science Research Fest, October 2018.
- 15.3.2.4 **Fatemeh Zare Abandankeshi**, **Dwight Makaroff** and Kevin Stanley, “Analyzing Performance of DTN Algorithms in Different Circumstances,” Department of Computer Science Research Fest, October 2018.

- 15.3.2.5 Mohamed Rashid Chowdhury, Derek Eager and Dwight Makaroff**, “Analysis and implication of scaling Convolutional Neural Network in Distributed GPU Cluster,” Department of Computer Science Research Fest, October 2018.
- 15.3.2.6 Babatunde Olabenjo and Dwight Makaroff**, “Information Leakage in Wearable Applications,” Department of Computer Science Research Fest, October 2018.
- 15.3.2.7 Tonghao Chen, Derek Eager and Dwight Makaroff**, “Long-Range Midweight Data Acquisition using LoRa Based Chain and Mesh Network,” Plant Phenotyping Imaging Research Centre (P2IRC) Symposium, October 2018 (Winner – People’s Choice Award).
- 15.3.2.8 Fadi AlMobayed, Derek Eager and Dwight Makaroff**, “Efficient High Throughput Protocols For Long Distance Big Data Transfer,” Department of Computer Science Research Fest, October 2017
- 15.3.2.9 Babatunde Olabenjo and Dwight Makaroff**, “Wearable Sensor Network Applications: Challenges, Approaches and Opportunities,” Department of Computer Science Research Fest, October 2017
- 15.3.2.10 Alireza Montazeri and Dwight Makaroff**, “An Analytical Study of Hierarchical Caching in Information-Centric Networks,” Department of Computer Science Research Fest, October 2017
- 15.3.2.11 Mohamed Rashid Chowdhury, Jarrod Pas, Derek Eager and Dwight Makaroff**, “Optimizing Multi-spectral Image Registration Application using GPUs to minimize total completion time,” Department of Computer Science Research Fest, October 2017
- 15.3.2.12 Habib Sabiu, Winfried Grassmann and Dwight Makaroff**” Performance Evaluation of Job Scheduling and Resource Allocation in Apache Spark,” Department of Computer Science Research Fest, October 2017
- 15.3.2.13 Fadi AlMobayed, Carl Hofmeister, Derek Eager, and Dwight Makaroff**, “Efficient High Throughput Protocols For Long Distance Big Data Transfer,” Plant Phenotyping Imaging Research Centre (P2IRC) Symposium, June 2017
- 15.3.2.14 Faheem Abrar and Dwight Makaroff**, “Parallelizing GWAS Applications in GRID/Cluster Environment,” P2IRC Symposium, June 2017
- 15.3.2.15 Habib Sabiu, Mohamad Rashid Chowdhury, Derek Eager, Winfried Grassmann and Dwight Makaroff**, “Parallelization of Multispectral Image Registration on Distributed Big Data Processing Frameworks and GPUs,” P2IRC Symposium, June 2017
- 15.3.2.16 Jarrod Pas and Dwight Makaroff**, “Exploiting Volunteer Computing Resources for Parallel Applications,” Plant Phenotyping Imaging Research Centre (P2IRC) Symposium, June 2017
- 15.3.2.17 Philip Dueck, David Callele, and Dwight Makaroff**, “Latency in Network Game Traffic,” Department of Computer Science Research Fest, October 2016
- 15.3.2.18 Habib Sabiu, Owolabi Adekoya, Derek Eager, Dwight Makaroff, Winfried Grassmann**, “Performance Analysis of Processing Remotely Sensed Images on Big Data Analytics Frameworks,” Department of Computer Science Research Fest, October 2016
- 15.3.2.19 Olowabi Adekoya, Habib Sabiu, Derek Eager, Winfried Grassmann, and Dwight Makaroff**, “Format Conversion and Sharpening of Remotely Sensed Plant Images on Big Data Analytics Frameworks,” Plant

## 16 Reports and Other Outputs

- 16.1** 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**, and D. Szafron, “Enabling technology for distributed multimedia applications,” IBM Systems Journal, Vol. 36, no. 4, pp 489-507, 1997.
- 16.2** 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.
- 16.3** 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 Intellectual Property

## 19 Research Funding History

- 19.1** MITACS Accelerate Research Award – “Full Stack Performance Analysis for Multi-tiered Web Applications” – Student Noah Orensa – Industry Partner Ag Exchange Network, co-supervised with Derek Eager – March 2022 - February 2023, \$60,000. Extended to August 2023.
- 19.2** MITACS Globalink Research Award – “Evaluating Delay/Disruption Tolerant Network Simulator by Termite” – Student Fatemeh Zare Abandankeshi, May – July 2019, \$6000.
- 19.3** NSERC Discovery Grant – “Distributed Systems Support for Processing Big Data From Sensor Networks,” 2019-2024 - \$28,000 per year.
- 19.4** President’s NSERC - Routing, Compression and Formatting for Application-Specific Sensors and Image Data, 2017-2018 - \$10,000.
- 19.5** NSERC Engage Plus Grant - April 2017 – September 2017, Alireza Montazeri - \$25,000. Packet Processing on CPU and FPGA Using Software-Defined Networking. Partner Organization – Vecima Networks, Inc.
- 19.6** Canada First Research Excellence Fund – Designing Crops for Global Food Security - Subtheme 3.1 Big Data Analytics – January 2016 – December 2022 - \$263,941 per year. My share \$90,000 per year. Principal Investigator – Maurice Moloney.
- 19.7** NSERC Engage Grant – November 2015 – May 2016, Alireza Montazeri - \$24,500. Network Packet Processing with P4 (Programming Protocol-Independent Packet Processors) in CPU, GPU, and FPGAs with OpenCL. Partner organization – Vecima Networks, Inc.
- 19.8** NSERC Industrial Postgraduate Scholarship – September 2015 – Philip Dueck (Experience First Design, Inc.)
- 19.9** MITACS Accelerate Grant – January to April 2014 - \$20,000. Partner organization: ExperienceFirstDesign.com.
- 19.10** NSERC Engage Grant May 2013 – August 2013 - \$25,000. Partner organization: ExperienceFirstDesign.com.
- 19.11** NSERC Discovery Grant 2011-2016 \$14,000 per year. Total of \$70,000.
- 19.12** NSERC Bridge Funding 2010-2011 \$13,000.
- 19.13** President's NSERC 2009-2010 \$9,474



- 19.14** NSERC Discovery Grant 2004-2009 \$18,700/year.
- 19.15** NSERC Industrial Postgraduate Scholarship – Qinxia (Alice) He – 2005-2007 (TR Labs)
- 19.16** NSERC Industrial Postgraduate Scholarship – Jason Coutu – 2004-2006 (TR Labs)
- 19.17** NSERC Industrial Postgraduate Scholarship – Fengdi Yang – 2002-2004 (TR Labs)
- 19.18** NSERC Discovery Grant 2000-2003 \$17,800/year
- 19.19** 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)

## **20 Practice of Professional Skills**

## **21 Administrative Service**

- 21.1** Department of Computer Science Undergraduate Committee (2023-2024) 80 hours
- 21.2** Department of Computer Science Salary Review Committee (2023-2024) 15 hours
- 21.3** Department of Computer Science Salary Review Committee (2022-2023) 15 hours
- 21.4** Department of Computer Science Undergraduate Committee (2022-2023) 15 hours
- 21.5** University Review Committee (2020-2021) 40 hours
- 21.6** University Recreation and Athletics Advisory Council. (2020-2021), 6 hours.
- 21.7** University Recreation and Athletics Advisory Council. (2019-2020), 6 hours.
- 21.8** University Review Committee (2018-2019) 36 hours
- 21.9** University Recreation and Athletics Advisory Council. (2018-2019), 4 hours.
- 21.10** College of Graduate Studies and Research – Academic Programs Committee (2010-2013)
- 21.11** College of Graduate Studies and Research – Awards Committee (2008-2009)
- 21.12** College of Arts and Science - Academic Programs Committee (2006-2007, 2008-2012) – Committee Chair in 2009-2010, 2010-2011, and 2011-2012\
- 21.13** College of Arts and Science – Academic Programs Coordinating Committee (2011 - 2012)
- 21.14** Arts and Science - Employment Equity Committee (2003 – 2006) co-chair for 2004 – 2005
- 21.15** Department of Computer Science – Graduate Committee – Grad Chair (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.
- 21.16** Department of Computer Science – Undergraduate Committee (2012-2013)
- 21.17** Department of Computer Science - Research Seminar Coordinator (2004- 2005)
- 21.18** Department of Computer Science – Curriculum Committee (2002 – 2007)
- 21.19** Department of Computer Science - Research Seminar Coordinator (2001- 2003)
- 21.20** University Council – council member-at-large (2005–2007, 2012-2014)
- 21.21** University Council Teaching, Learning and Academic Resources Committee (TLARC) (2013-2014)
- 21.22** TLARC Subcommittee on Evaluation of Teaching (2013-2014)
- 21.23** University Council Academic Support Committee (2012-2013)

## **22. Professional and Association Offices and Committee Activity outside the U of S**

### **22.1 Ph. D. External Examiner**

- 22.1.1** Department of Computer Science, University of British Columbia – Jonatan Schroeder – June 2016.
- 22.1.2** Department of Systems and Computer Engineering - Carleton University – Muhammed Asif – April 2012.
- 22.1.3** Department of Computer Science, University of Calgary – Emir Halepovic – August 2010.

### **22.2 Society Memberships**

- 22.2.1** Association for Computing Machinery (1986 – present)
- 22.2.2** ACM Special Interest Group on Multimedia (SIGMM) 2001 – present
- 22.2.3** Web Area Editor, Association for Computing Machinery Special Interest Group on Multimedia (ACM SIGMM) - Editor for Education 2003 – 2006
- 22.2.4** IEEE Computer Society (2010 - present)

### **22.3 Conference Administration**

- 22.3.1** Workshop Organizing Committee - Multi-Access Edge Computing (MEC) for Internet of Things (IoT) Realization – IEEE WF-5G Conference – 2018
- 22.3.2** Web Site Editor ACM Multimedia Conference – 2001

### **22.4 Conference Program Committees:**

#### **22.4.1 2024-2025**

- 22.4.1.1** 50<sup>th</sup> IEEE Conference on Local Computer Networks, Sydney, Australia, October 14 – 16, 2025

#### **22.4.2 2023-2024**

- 22.4.2.1** IBM CASCON: Conference of the Centre for Advanced Studies on Collaborative Research (CASCON 2024) – Toronto, ON, Canada, November 11-13, 2024.
- 22.4.2.2** 32<sup>nd</sup> ACM Conference on Multimedia – Ottawa, ON, Canada, October 28 – November 1, 2024.
- 22.4.2.3** 49<sup>th</sup> IEEE Conference on Local Computer Networks, Normandy, France, October 8 – 10, 2024.

#### **22.4.3 2022-2023**

- 22.4.3.1** IEEE International Conference on Blockchain (ICBC) – Ocean Flower Island, Hainan, China, December 17-21, 2023
- 22.4.3.2** 31<sup>st</sup> ACM Conference on Multimedia – Ottawa, ON, Canada, October 29 – November 3, 2023.
- 22.4.3.3** 48<sup>th</sup> IEEE Conference on Local Computer Networks, Daytona Beach, FL, October 2 – 5, 2023.
- 22.4.3.4** IEEE Canadian Conference on Electrical and Computer Engineering, Regina, SK, Canada, September 24-27, 2023.
- 22.4.3.5** IBM CASCON: Conference of the Centre for Advanced Studies on Collaborative Research (CASCON 2023) – Las Vegas, NV, Sep 12 – 16, 2023.

#### **22.4.4 2021-2022**

- 22.4.4.1** IBM CASCON: Conference of the Centre for Advanced Studies on Collaborative Research (CASCON 2022) – Toronto, Ontario, November 2022.
- 22.4.4.2** 30<sup>th</sup> ACM Conference on Multimedia (SIGMM) – Lisbon, Portugal, October 10-14, 2022
- 22.4.4.3** 47<sup>th</sup> IEEE Conference on Local Computer Networks (LCN) – Edmonton, AB, Canada, September 26-29, 2022

- 22.4.4.4 The Annual IEEE Canadian Conference of Electrical and Computer Engineering (CCECE) – Halifax, NS, Canada, September 12-17, 2021 (Virtual)
- 22.4.4.5 IEEE 5G World Forum (5GWF) – Montreal, QC, Canada (virtual event), October 13-15, 2021
- 22.4.4.6 46<sup>th</sup> IEEE Conference on Local Computer Networks (LCN) – October 4-7, 2021 (held virtually)
- 22.4.4.7 29<sup>th</sup> ACM Conference on Multimedia (SIGMM) – Chengdu, China, October 10-24, 2021 (hybrid)
- 22.4.5 2020-2021**
  - 22.4.5.1 The Annual IEEE Canadian Conference of Electrical and Computer Engineering (CCECE) – Halifax, NS, Canada, September 12-17, 2021 (Virtual)
  - 22.4.5.2 29<sup>th</sup> ACM Conference on Multimedia (SIGMM) – Chengdu, China, October 10-24, 2021 (hybrid)
  - 22.4.5.3 46<sup>th</sup> IEEE Conference on Local Computer Networks (LCN) – October 16-19, 2021 (to be held virtually)
  - 22.4.5.4 IEEE 5G World Forum (5GWF) – Montreal, QC, Canada (virtual event), October 13-15, 2021
  - 22.4.5.5 16<sup>th</sup> Web Information Systems and Technologies (WEBIST 2020) – Budapest, Hungary – November 3-5, 2020
  - 22.4.5.6 45<sup>th</sup> IEEE Conference on Local Computer Networks (LCN) – Sydney, Australia, November 16-19, 2020 (to be held virtually)
  - 22.4.5.7 28<sup>th</sup> ACM Conference on Multimedia (SIGMM) – Seattle, WA, October 12-16, 2020
  - 22.4.5.7.1 IEEE 5G World Forum (5GWF) – (virtual event) September 10-12, 2020
- 22.4.6 2019-2020**
  - 22.4.6.1 16<sup>th</sup> Web Information Systems and Technologies (WEBIST 2020) – Budapest, Hungary – November 3-5, 2020
  - 22.4.6.2 45<sup>th</sup> IEEE Conference on Local Computer Networks (LCN) – Sydney, Australia, November 16-19, 2020 (to be held virtually)
  - 22.4.6.3 28<sup>th</sup> ACM Conference on Multimedia (SIGMM) – Seattle, WA, October 12-16, 2020 (to be held virtually)
  - 22.4.6.4 IEEE 5G World Forum (5GWF) – (virtual event) September 10-12, 2020
  - 22.4.6.5 27<sup>th</sup> ACM Conference on Multimedia (SIGMM) – Nice, France, October 21-25, 2019
  - 22.4.6.6 44<sup>th</sup> IEEE Conference on Local Computer Networks (LCN) – Onasbruck, Germany, Oct 14-17, 2019
  - 22.4.6.7 IEEE 5G World Forum, (WF-5G) - Dresden, Germany, September 30 – October 2, 2019
  - 22.4.6.8 15<sup>th</sup> Web Information Systems and Technologies (WEBIST 2019) – Vienna, Austria – September 18-20, 2019
  - 22.4.6.9 9<sup>th</sup> International Conference on Pervasive and Embedded Computer and Communication Systems (PECCS 2019) – Vienna, Austria, September 18-20, 2019
- 22.4.7 2018-2019**
  - 22.4.7.1 15<sup>th</sup> Web Information Systems and Technologies (WEBIST 2019) – Vienna, Austria – September 18-20, 2019

22.4.7.2 ACM Multimedia Systems Conference (MMSys '19) –  
Boston, MA, June 2019

**22.4.8 2017-2018**

22.4.8.1 36<sup>th</sup> International Performance Computing and  
Communications Conference (IPCCC 2017) – San Diego, CA,  
December 10-12, 2017

22.4.8.2 ACM Multimedia Systems Conference (MMSys '18) –  
Amsterdam, The Netherlands, June 12-15, 2018

22.4.8.3 Network Traffic Measurement and Analysis Conference  
(TMA 2018), Vienna, Austria, June 26-29, 2018

22.4.8.4 6<sup>th</sup> International Conference on Signal Processing and  
Communication Systems (SPCS 2016) – Porto, Portugal - July 29-  
30, 2016

22.4.8.5 43<sup>rd</sup> IEEE Conference on Local Computer Networks (LCN)  
- Chicago, IL, Oct 1-4, 2018

22.4.8.6 14<sup>th</sup> Web Information Systems and Technologies (WEBIST  
2018) – Seville, Spain – September 18-20, 2018

22.4.8.7 2016-2017

22.4.8.8 35<sup>th</sup> International Performance Computing and  
Communications Conference (IPCCC 2016) – Las Vegas, NV,  
December 9-11, 2016

22.4.8.9 42<sup>nd</sup> IEEE Conference on Local Computer Networks (LCN)  
- Singapore, Oct 9-12, 2017

22.4.8.10 10<sup>th</sup> IEEE Workshop on Network Measurements (WNM  
2016) – Dubai, UAE, November 7-10, 2016

22.4.8.11 5<sup>th</sup> International Conference on Signal Processing and  
Communication Systems (SPCS 2016) – Rome, Italy - July 25-27,  
2016

22.4.8.12 10<sup>th</sup> C\* Conference on Computer Science and Software  
Engineering (C3S2E 2017) – papers reviewed, but conference  
cancelled.

22.4.8.13 13<sup>th</sup> Web Information Systems and Technologies (WEBIST  
2017) – Porto, Portugal – April 25-27, 2017

22.4.8.14 1<sup>st</sup> Network Traffic Measurement and Analysis Conference  
(TMA 2017) – Dublin, Ireland – June 21-23, 2017

22.4.8.15 International Conference on Vehicular, Mobile and Wearable  
Technology (VMW 2017) - Rome, Italy, June 4-6, 2017

22.4.8.16 35<sup>th</sup> International Performance Computing and  
Communications Conference (IPCCC 2016) – Las Vegas, NV,  
December 10-12, 2016

**22.4.9 2015-2016**

22.4.9.1 35<sup>th</sup> International Performance Computing and  
Communications Conference (IPCCC 2016) – Las Vegas, NV,  
December 9-11, 2016

22.4.9.2 41<sup>st</sup> IEEE Conference on Local Computer Networks (LCN)  
- Dubai, UAE, Nov 7-10, 2016

22.4.9.3 10<sup>th</sup> IEEE Workshop on Network Measurements (WNM  
2016) – Dubai, UAE, November 7-10, 2016

- 22.4.9.4 5<sup>th</sup> International Conference on Signal Processing and Communication Systems (SPCS 2016) – Rome, Italy - July 25-27, 2016
- 22.4.9.5 9<sup>th</sup> C\* Conference on Computer Science and Software Engineering (C3S2E 2016) – Porto, Portugal – July 20-22, 2016
- 22.4.9.6 11<sup>th</sup> International Networks Conference (INC 2016) – Frankfurt, Germany - July 19-21, 2016.
- 22.4.9.7 29<sup>th</sup> Annual IEEE Conference on Electrical and Computer Engineering (CCECE) – Vancouver, Canada – May 15-18, 2016
- 22.4.9.8 26<sup>th</sup> ACM SIGMM Workshop on Network and Operating Systems Support for Digital Audio and Video (NOSSDAV 2016) – Klagenfurt am Worthersee, Austria - May 13, 2016
- 22.4.9.9 12<sup>th</sup> Web Information Systems and Technologies (WEBIST 2016) – Rome, Italy – April 23-25, 2016
- 22.4.9.10 IBM CASCON: Conference of the Centre for Advanced Studies on Collaborative Research (CASCON 2015) – Toronto, Ontario, November 2015.

#### **22.4.10 2014-2015**

- 22.4.10.1 34<sup>th</sup> International Performance Computing and Communications Conference (IPCCC 2015) – Nanjing, China, December 2015
- 22.4.10.2 IBM CASCON: Conference of the Centre for Advanced Studies on Collaborative Research (CASCON 2015) – Toronto, Ontario, November 2015.
- 22.4.10.3 40<sup>th</sup> IEEE Conference on Local Computer Networks (LCN) - Clearwater Beach, FL, October 26-29, 2015
- 22.4.10.4 8<sup>th</sup> C\* Conference on Computer Science and Software Engineering (C3S2E 2015) – Yokohama, Japan – July 2015
- 22.4.10.5 25<sup>th</sup> ACM SIGMM Workshop on Network and Operating Systems Support for Digital Audio and Video (NOSSDAV 2015) - Portland, OR, March 20, 2015
- 22.4.10.6 11<sup>th</sup> Web Information Systems and Technologies (WEBIST 2015) – Lisbon, Portugal, May 2015
- 22.4.10.7 5<sup>th</sup> International Conference on Pervasive and Embedded Computer and Communication Systems (PECCS 2015) – Angers, France, February 2015
- 22.4.10.8 33<sup>rd</sup> International Performance Computing and Communications Conference (IPCCC 2014) – Austin, TX, December 2014
- 22.4.10.9 IBM CASCON 2014 – Conference of the Centre for Advanced Studies on Collaborative Research (CASCON 2014) – Toronto, Ontario, November 2014.

#### **22.4.11 2013-2014**

- 22.4.11.1 IBM CASCON 2014 – Conference of the Centre for Advanced Studies on Collaborative Research (CASCON 2014) Toronto, ON, November 2014.
- 22.4.11.2 10<sup>th</sup> International Networks Conference (INC 2014) – Plymouth, UK, July 2014.
- 22.4.11.3 19<sup>th</sup> IEEE International Conference on Networks (ICON 2013) – Singapore, Singapore, December 2013
- 22.4.11.4 7<sup>th</sup> C\* Conference on Computer Science and Software Engineering (C3S2E 2014) – Montreal, QC, August 2014

- 22.4.11.5 10<sup>th</sup> Web Information Systems and Technologies (WEBIST 2014) – Barcelona, Spain, April 2014
- 22.4.11.6 IBM CASCON 2013 – Conference of the Centre for Advanced Studies on Collaborative Research (CASCON 2013) Toronto, ON, November 2012
- 22.4.12** 2012-2013
  - 22.4.12.1 CASCON 2013 – Conference of the Centre for Advanced Studies on Collaborative Research (CASCON 2013), Toronto, ON, November 2013
  - 22.4.12.2 18<sup>th</sup> IEEE International Conference on Networks (ICON 2012) – Singapore, Singapore, December 2012
  - 22.4.12.3 6<sup>th</sup> C\* Conference on Computer Science and Software Engineering (C3S2E 2013) – Porto, Portugal, July 2013
- 22.4.13** 2011-2012
  - 22.4.13.1 9<sup>th</sup> International Networks Conference (INC 2012) – Port Elizabeth, South Africa, July 2012
  - 22.4.13.2 5<sup>th</sup> C\* Conference on Computer Science and Software Engineering (C3S2E 2012) – Montreal, QC, June 2012
  - 22.4.13.3 9<sup>th</sup> IEEE Conference on Embedded and Ubiquitous Computing (EUC 2011) – Melbourne, Australia, October 2011
- 22.4.14** 2010-2011
  - 22.4.14.1 2<sup>nd</sup> ACM Multimedia Systems Conference (MMSYS 2011) – San Jose, CA - February 2011
  - 22.4.14.2 4<sup>th</sup> Canadian Conference on Computer Science and Software Engineering (C3S2E) – Montreal, QC, May 2011
- 22.4.15** 2009-2010
  - 22.4.15.1 8<sup>th</sup> International Network Conference (INC 2010) – Heidelberg, Germany - July 2010
  - 22.4.15.2 3<sup>rd</sup> Canadian Conference on Computer Science and Software Engineering (C3S2E) – Montreal, QC, May 2010
  - 22.4.15.3 1<sup>st</sup> ACM Multimedia Systems Conference (MMSYS) – Phoenix, AZ, February 2010
- 22.4.16** 2008-2009
  - 22.4.16.1 CASCON 2009 – Conference of the Centre for Advanced Studies on Collaborative Research (CASCON 2009), Toronto, ON, November 2009
  - 22.4.16.2 1<sup>st</sup> IEEE WoWMoM Workshop on Hot Topics in Mesh Networking (HotMesh 2009) – Kos, Greece, June 2009
  - 22.4.16.3 2<sup>nd</sup> Canadian Conference on Computer Science and Software Engineering (C3S2E) – Montreal, QC, May 2009
- 22.4.17** 2007-2008
  - 22.4.17.1 ACM Multimedia 2008 – Vancouver, BC, October 2008\
  - 22.4.17.2 CASCON 2008 – Conference of the Centre for Advanced Studies on Collaborative Research (CASCON 2008), Toronto, ON, October 2008
  - 22.4.17.3 7<sup>th</sup> International Network Conference (INC 2008) – Plymouth, UK, July 2008
- 22.4.18** 2006-2007
  - 22.4.18.1 CASCON 2007 – Conference of the Centre for Advanced Studies on Collaborative Research (CASCON 2007), Toronto, ON, October 2007.
- 22.4.19** 2005-2006

- 22.4.19.1 6<sup>th</sup> International Network Conference (INC 2006) – Plymouth, UK, July 2006.
  - 22.4.20** 2004-2005
    - 22.4.20.1 5<sup>th</sup> International Network Conference (INC 2005) - Samos, Greece, July 2005
    - 22.4.20.2 Multimedia Interactive Protocols and Systems (MIPS 04), Grenoble, France, November 2004
  - 22.4.21** 2003-2004
    - 22.4.21.1 4<sup>th</sup> International Network Conference (INC 2004), Plymouth UK, July 2004
    - 22.4.21.2 End-to-End Service Differentiation Workshop, Phoenix, AZ, April 2004.
  - 22.4.22** 2002-2003
    - 22.4.22.1 ACM Multimedia Conference, Berkeley, CA, November 2003
    - 22.4.22.2 End-to-End Service Differentiation Workshop, Phoenix, AZ, April 2003
- 22.5** Conference Session Chair
  - 22.5.1** 2019-2020
    - 22.5.1.1 12<sup>th</sup> International Conference on Security, Privacy and Anonymity in Computation, Communication and Storage (SpaCCS 2019) – Atlanta, GA, July 2020 (2 sessions)
  - 22.5.2** 2015-2016
    - 22.5.2.1 9<sup>th</sup> IEEE Workshop on Network Measurements (WNM 2015) – Clearwater Beach, FL, October, 2016
  - 22.5.3** 2014-2015
    - 22.5.3.1 17<sup>th</sup> Modeling, Analysis, and Simulation of Wireless and Mobile Systems (MSWiM 2014) – Montreal, QC, September 2014
  - 22.5.4** 2007-2008
    - 22.5.4.1 Passive and Active Measurement (PAM) – Cleveland, OH, May 2008
  - 22.5.5** 2006-2007
    - 22.5.5.1 CASCON 2006 – Toronto, ON, October 2006
  - 22.5.6** 2005-2006
    - 22.5.6.1 IEEE Systems, Man, and Cybernetics – Waikaloa, HI, October 2005
    - 22.5.6.2 Distributed Multimedia Systems – Banff, AB, September 2005
  - 22.5.7** 2004-2005
    - 22.5.7.1 MASCOTS 2004 – Volendam, The Netherlands, October 2004
  - 22.5.8** 2003-2004
    - 22.5.8.1 IASTED International Conference on Internet and Multimedia Systems and Applications, Honolulu, HI, August 2003
- 22.6** Refereeing
  - 22.6.1** 2024-2025
    - 22.6.1.1 Journals
    - 22.6.1.2 Conferences
      - 22.6.1.2.1 LCN 2025 – 6 papers
    - 22.6.1.3 Grants
      - 22.6.1.3.1 NSERC Discovery Grants – 1 grant
  - 22.6.2** 2023-2024

- 22.6.2.1 Journals
  - 22.6.2.1.1 Elsevier Computer Networks – 1 paper
- 22.6.2.2 Conferences
  - 22.6.2.2.1 CASCON 2024 – 3 papers
  - 22.6.2.2.2 ACM Multimedia 2024 – 3 papers
  - 22.6.2.2.3 LCN 2024 – 7 papers
- 22.6.2.3 Grants
  - 22.6.2.3.1 NSERC Discovery Grants – 2 grants
- 22.6.3 2022-2023**
  - 22.6.3.1 Journals
  - 22.6.3.2 Conferences
    - 22.6.3.2.1 ACM Multimedia 2023 – 5 papers
    - 22.6.3.2.2 LCN 2023 – 5 papers
    - 22.6.3.2.3 IEEE Conference on Blockchain – 3 papers
    - 22.6.3.2.4 CCECE 2023 – 5 papers
    - 22.6.3.2.5 CASCON 2023 – 3 papers
  - 22.6.3.3 Grants
    - 22.6.3.3.1 NSERC Discovery Grants – 2 grants
    - 22.6.3.3.2 MITACS Accelerate Grants – 1 grant
- 22.6.4 2021-2022**
  - 22.6.4.1 Journals
  - 22.6.4.2 Conferences
    - 22.6.4.2.1 ACM Multimedia 2022 – 8 papers
    - 22.6.4.2.2 LCN 2022 – 5 papers
  - 22.6.4.3 Grants
- 22.6.5 2020-2021**
  - 22.6.5.1 Journals
  - 22.6.5.2 Conferences
    - 22.6.5.2.1 Web Information Systems and Technologies 2020 – 1 paper
    - 22.6.5.2.2 ACM Multimedia 2021 – 4 papers
    - 22.6.5.2.3 LCN 2020 – 6 papers
    - 22.6.5.2.4 LCN 2021 - 6 papers
    - 22.6.5.2.5 5GWF 2020 - 1 paper
  - 22.6.5.3 Grants
- 22.6.6 2019-2020**
  - 22.6.6.1 Journals
    - 22.6.6.1.1 IEEE/ACM Transactions on Networks (TON) – 1 paper
    - 22.6.6.1.2 ACM Transactions on Multimedia Computing, Communications and Applications (TOMM) – 1 paper
    - 22.6.6.1.3 IEEE JSAC Special Issue on Multimedia Economics for Future Networks: Theory, Methods and Applications – 1 paper
  - 22.6.6.2 Conferences
    - 22.6.6.2.1 IEEE LCN 2019 – 6 papers
    - 22.6.6.2.2 ACM Multimedia 2019 – 4 papers
    - 22.6.6.2.3 IFIP TMA 2019 – 5 papers
    - 22.6.6.2.4 ACM MMSYS 2019 – 3 papers
    - 22.6.6.2.5 WEBIST 2019 – 2 papers
    - 22.6.6.2.6 PECCS 2019 – 4 papers
    - 22.6.6.2.7 IEEE 5GWF – 1 paper
- 22.6.7 2018-2019**



- 22.6.7.1 Journals
  - 22.6.7.1.1 ACM Transactions on Multimedia Computing, Communications and Applications (TOMM) – 1 paper
- 22.6.7.2 Conferences
  - 22.6.7.2.1 IEEE LCN 2018 – 5 papers
  - 22.6.7.2.2 IFIP TMA 2018 – 5 papers
  - 22.6.7.2.3 ACM MMSys 2018 – 3 papers
  - 22.6.7.2.4 ACM MMSys 2018 Special Session on Vision – 2 papers
  - 22.6.7.2.5 WEBIST 2018 – 1 paper
  - 22.6.7.2.6 SPCS 2018 – 1 paper
  - 22.6.7.2.7 IPCCC 2017 – 6 papers
- 22.6.7.3 Grants
  - 22.6.7.3.1 NSERC Discovery Grant – 1 grant
- 22.6.8 2017-2018**
  - 22.6.8.1 Journals
    - 22.6.8.1.1 ACM Transactions on Multimedia (TOMM) – 1 paper
  - 22.6.8.2 Conferences/Workshops
    - 22.6.8.2.1 IPCCC 2017 – 6 papers
    - 22.6.8.2.2 MMSys 2018 – 3 papers, Special session on Vision – 2 papers
    - 22.6.8.2.3 IEEE LCN 2018 – 5 papers
    - 22.6.8.2.4 TMA 2018 – 5 papers
    - 22.6.8.2.5 WEBIST 2018 – 1 paper
    - 22.6.8.2.6 SPCS 2018 – 1 paper
  - 22.6.8.3 Grants
    - 22.6.8.3.1 NSERC Discovery Grants – 1 application
- 22.6.9 2016-2017**
  - 22.6.9.1 Journals
    - 22.6.9.1.1 Elsevier Computer Networks (COMNET) – 2 papers
    - 22.6.9.1.2 ACM Transactions on Multimedia (TOMM) – 1 paper
  - 22.6.9.2 Conferences/Workshops
    - 22.6.9.2.1 IEEE LCN 2017 – 7 papers
    - 22.6.9.2.2 TMA 2017 – 4 papers
    - 22.6.9.2.3 C3S2E 2017 – 3 papers
    - 22.6.9.2.4 WNM 2016 – 2 papers
    - 22.6.9.2.5 WEBIST 2017 – 3 papers
    - 22.6.9.2.6 SPCS 2017 – 1 paper
    - 22.6.9.2.7 VMW 2017 – 1 paper
    - 22.6.9.2.8 IPCCC 2016 – 8 papers
  - 22.6.9.3 Grants
    - 22.6.9.3.1 NSERC Strategic Project Grants – 1 application
- 22.6.10 2015-2016**
  - 22.6.10.1 Journals
    - 22.6.10.1.1 ACM Transactions on Multimedia Computing, Communications, and Applications (TOMM) – 2 papers
  - 22.6.10.2 Conferences/Workshops
    - 22.6.10.2.1 IEEE LCN 2016 – 7 papers
    - 22.6.10.2.2 WNM 2016 – 1 paper
    - 22.6.10.2.3 CCECE 2016 – 2 papers
    - 22.6.10.2.4 C3S2E 2016 – 3 papers

- 22.6.10.2.5WEBIST 2016 – 3 papers
- 22.6.10.2.6NOSSDAV 2016 – 4 papers
- 22.6.10.2.7SPCS 2016 – 1 paper
- 22.6.10.2.8IPCCC 2015 – 8 papers
- 22.6.10.2.9CASCON 2015 – 4 papers
- 22.6.10.3 Grants
  - 22.6.10.3.1NSERC Discovery Grants – 1 application

## **22.6.112014-2015**

- 22.6.11.1 Journals
  - 22.6.11.1.1Elsevier Computer Networks – 2 papers
- 22.6.11.2 Conferences/Workshops
  - 22.6.11.2.1IEEE LCN 2015 – 6 papers
  - 22.6.11.2.2C3S2E 2015 – 1 paper
  - 22.6.11.2.3WEBIST 2015 – 3 papers
  - 22.6.11.2.4NOSSDAV 2015 – 4 papers
  - 22.6.11.2.5IBM CASCON 2014 - 4 papers
  - 22.6.11.2.6IEEE IPCCC 2014 – 6 papers
  - 22.6.11.2.7PECCS 2015 – 3 papers
- 22.6.11.3 Grants
  - 22.6.11.3.1NSERC Discovery Grants – 2 grants

## **22.6.122013-2014**

- 22.6.12.1 Journals
  - 22.6.12.1.1Elsevier Communication Networks: 2 papers
  - 22.6.12.1.2IEEE Internet Computing: 1 paper
- 22.6.12.2 Conferences/Workshops
  - 22.6.12.3 CASCON 2013 – 5 papers
  - 22.6.12.4 ICON 2013 – 4 papers
  - 22.6.12.5 INC 2014 – 0 papers
  - 22.6.12.6 C3S2E 2014 – 2 papers
  - 22.6.12.7 WEBIST 2014 – 4 papers

## **22.6.132012-2013**

- 22.6.13.1 Journals
  - 22.6.13.1.1Elsevier Communication Networks: 1 paper
- 22.6.13.2 Conferences/Workshops
  - 22.6.13.2.1ICON 2012 – 3 papers
  - 22.6.13.2.2C3S2E 2013 – 2 papers
- 22.6.13.3 Grants
  - 22.6.13.3.1NSERC Discovery Grant – 1 application

## **22.6.142011-2012**

- 22.6.14.1 Journals
  - 22.6.14.1.1Elsevier Communication Networks: 3 papers
  - 22.6.14.1.2ACM Transactions on Multimedia Computing, Communications, and Applications (TOMCCAP): 1 paper
  - 22.6.14.1.3IEEE Transactions on Multimedia: 1 paper
- 22.6.14.2 Conferences/Workshops
  - 22.6.14.2.1INC 2012 – 2 papers
  - 22.6.14.2.2C3S2E 2012 – 2 papers
  - 22.6.14.2.3EUC 2011 – 2 papers
- 22.6.14.3 Grants

- 22.6.14.3.1INSERC Discovery Grant – 1 application
- 22.6.15** 2010-2011
  - 22.6.15.1 Journals
  - 22.6.15.2 Conferences/Workshops
    - 22.6.15.2.1C3S2E 2011 – 2 papers
    - 22.6.15.2.2MMSYS 2011 - 4 papers
  - 22.6.15.3 Grants
    - 22.6.15.3.1INSERC Discovery Grant: 1 application
- 22.6.16** 2009-2010
  - 22.6.16.1 Journals
    - 22.6.16.1.1Data and Knowledge Engineering – 1 paper
  - 22.6.16.2 Conferences/Workshops
    - 22.6.16.2.1 INC 2010 – 3 papers
    - 22.6.16.2.2 C3S2E 2010 – 4 papers
    - 22.6.16.2.3 MMSYS 2010 – 5 papers
  - 22.6.16.3 Grants
    - 22.6.16.3.1INSERC Discovery Grant – 1 application
    - 22.6.16.3.2NSERC-DVD – 1 application
  - 22.6.16.4 Tenure/Promotion Cases
    - 22.6.16.4.1Tenure Case – 1 application
- 22.6.17** 2008-2009
  - 22.6.17.1 Journals
    - 22.6.17.1.1Internet Computing – 1 paper
    - 22.6.17.1.2Data and Knowledge Engineering Journal – 1 paper
    - 22.6.17.1.3Computer Communications – 1 paper
    - 22.6.17.1.4Transactions on Multimedia Computing, Communications and Applications (TOMCCAP) – 1 paper
    - 22.6.17.1.5Computer Communications Review – 1 paper
  - 22.6.17.2 Conference\’s/Workshops
    - 22.6.17.2.1HotMesh 2009 – 3 papers
    - 22.6.17.2.2Canadian Conference on Computer Science and Software Engineering (C3S2E) – 5 papers
    - 22.6.17.2.3 CASCON 2009 – 7 papers
    - 22.6.17.2.4 Grants
- 22.6.18**2007-2008
  - 22.6.18.1 Journals
    - 22.6.18.1.1DKE Journal – 1 paper
  - 22.6.18.2 Conferences/Workshops
    - 22.6.18.2.1INC 2008 – 3 papers
    - 22.6.18.2.2ACM Multimedia – 6 papers
    - 22.6.18.2.3CASCON 2008 - 4 papers
  - 22.6.18.3 Grants
    - 22.6.18.3.1INSERC Discovery Grants – 1 application
- 22.6.19** 2006-2007
  - 22.6.19.1 Journals
  - 22.6.19.2 Conferences/Workshops
    - 22.6.19.2.1CASCON 2007 – 5 papers
  - 22.6.19.3 Grants
    - 22.6.19.3.1INSERC Strategic Grants – 1 application
- 22.6.20** 2005-2006
  - 22.6.20.1 Journals

- 22.6.20.1.1 Information and Software Technology - 1 paper
- 22.6.20.2 Conferences/Workshops
  - 22.6.20.2.1 INC 2006 - 3 papers
- 22.6.20.3 Grants
  - 22.6.20.3.1 NSERC Discovery Grants - 1 application
- 22.6.21 2004-2005**
  - 22.6.21.1 Journals
    - 22.6.21.1.1 ACM Transactions on the Internet (TOIT) - 1 paper
    - 22.6.21.1.2 IEEE Transactions on Computers (TOC) - 1 paper
    - 22.6.21.1.3 Information and Software Technology - 1 paper
  - 22.6.21.2 Conferences/Workshops
    - 22.6.21.2.1 MIPS 04 - 4 papers
    - 22.6.21.2.2 INC 05 - 3 papers
  - 22.6.21.3 Grants
    - 22.6.21.3.1 NSERC Discovery Grants - 1 application
- 22.6.22 2003-2004**
  - 22.6.22.1 Journals
    - 22.6.22.1.1 Journal of Computer Communications - 3 papers
    - 22.6.22.1.2 Performance Evaluation Journal - 1 paper
  - 22.6.22.2 Conferences/Workshops
    - 22.6.22.2.1 End-to-End Service Differentiation Workshop - 2 papers
    - 22.6.22.2.2 INC 2004 – 6 papers
  - 22.6.22.3 Grants
    - 22.6.22.3.1 NSERC Discovery Grants - 1 application
- 22.6.23 2002-2003**
  - 22.6.23.1 Journals
    - 22.6.23.1.1 Journal of Multimedia Tools and Applications - 1 paper
    - 22.6.23.1.2 Elsevier Computer Networks Journal - 1 paper
    - 22.6.23.1.3 Information and Software Technology - 2 papers
  - 22.6.23.2 Conferences/Workshops
    - 22.6.23.2.1 End-to-End Service Differentiation Workshop - 2 papers
    - 22.6.23.2.2 ACM Multimedia Conference - 11 papers
  - 22.6.23.3 Grants
    - 22.6.23.3.1 Academic Development Fund, University of Western Ontario - 1 application
- 22.6.24 2001-2002**
  - 22.6.24.1 Journals
    - 22.6.24.1.1 ACM Multimedia Journal - 1 paper
    - 22.6.24.1.2 Elsevier Computer Networks Journal - 1 paper
    - 22.6.24.1.3 Information and Software Technology - 1 paper
    - 22.6.24.1.4 IEEE Multimedia Journal - 1 paper
  - 22.6.24.2 Conferences/Workshops
    - 22.6.24.2.1 TOOLS 2002 - 1 paper
    - 22.6.24.2.2 CASCON 2002 - 1 paper
  - 22.6.24.3 Grants
    - 22.6.24.3.1 NSERC Discovery Grants - 1 application

## **29 Public and Community Contributions – University Related, Non-University Related**

### **29.1.1 University Related**

- 29.1.1.1** Co-Coach - ACM Programming Team, Fall 2010. Regional Contest in Saskatoon, SK, October 2010.

- 29.1.1.2** Co-Coach - ACM Programming Team, Fall 2009. Regional Contest in Saskatoon, SK, October 2009.
- 29.1.1.3** Co-Coach - ACM Programming Team, Fall 2008. Regional Contest in Saskatoon, SK, October 2008.
- 29.1.1.4** Host – Regional ACM Programming Contest (ICPC) – held in Saskatoon, SK, October 2006.
- 29.1.1.5** Co-Coach - ACM Programming Team, Fall 2006. Regional Contest in Saskatoon, SK, October 2006.
- 29.1.1.6** Host – Regional ACM Programming Contest (ICPC) – held in Saskatoon, SK, October 2005.
- 29.1.1.7** Coach - ACM Programming Team, Fall 2005. Regional Contest in Saskatoon, SK, October 2005.
- 29.1.1.8** Host – Regional ACM Programming Contest (ICPC) – held in Saskatoon, SK, October 2004.
- 29.1.1.9** Coach - ACM Programming Team, Fall 2004. Regional Contest in Saskatoon, SK, October 2004.
- 29.1.1.10** Coach - ACM Programming Team, Fall 2003. Regional Contest in Lethbridge, AB, November 2003.
- 29.1.1.11** Coach - ACM Programming Team, Fall 2002. Regional Contest in Lethbridge, AB, November 2002.
- 29.1.1.12** Coach - ACM Programming Team, Fall 2001. Regional Contest in Lethbridge, AB, November 2001.

## **29.2 Non-University Related**

- 29.2.1** Media Coordinator – The Gathering – (September 2023-present)
- 29.2.2** Leadership Team – The Gathering at Broadway – Broadway site of Forest Grove Community Church (September 2011- June 2019).
- 29.2.3** Council Secretary – Forest Grove Community Church (September 2016 – September 2020).
- 29.2.4** Church Council – Forest Grove Community Church (March 2015 – June 2021).
- 29.2.5** Launch Team – The Gathering at Broadway - Broadway site of Forest Grove Community Church (October 2010-August 2011)
- 29.2.6** Nominations Committee Chairperson, Living Hope Church (November 2005-September 2007)
- 29.2.7** President - Proclaim! International Canada - (October 2005–January 2014)
- 29.2.8** Board Member, Living Hope Church (October 2005-January 2009) – board secretary from October 2005 to September 2007.
- 29.2.9** Temporary Board of Management, Living Hope Church (June 2005-Oct 2005)
- 29.2.10** Media Team Leader, Living Hope Church (Oct 2002-July 2007)
- 29.2.11** Design Team, Living Hope Church (Sept 2002-Sept 2003)
- 29.2.12** Growth Team, Living Hope Church (April 2002-April 2004)

## **30 Other Activities**

### **30.1 Consulting Work Undertaken:**

- 30.1.1** Greatway Global Communications, (2000 to 2004)