CURRICULUM VITAE

1. **NAME:** Michael Katchabaw

RANK: Associate Professor

2. **EDUCATION:**

Degree	University	Department	Year
B.Sc. (Honours) Ph.D.	University of Western Ontario University of Western Ontario	•	1995 2002

3. **PROFESSIONAL EXPERIENCE**:

Date	Rank and Position	Department	Institution
10/2021 – Present	Instructional Techno	•	International Atomic Energy
	Educational Game D	•	Agency
09/2016 – Present	Director	Business Intelligence	Big Blue Bubble (Sabbatical)
	Developer (Lead Pr		Big Blue Bubble (Sabbatical)
07/2008 - Present	Associate Professor	Computer Science	The University of Western Ontario
07/2002 - 06/2008	Assistant Professor	Computer Science	The University of Western Ontario
01/2002 - 05/2002	Sessional Lecturer	Computer Science	The University of Western Ontario
03/1999 - 04/1999	Consultant		uuserve&
09/1996 - 05/1998	Sessional Lecturer	Computer Science	The University of Western Ontario
06/1995 - 12/1997	Teaching Assistant	Computer Science	The University of Western Ontario
09/1993 - 05/1996	Course Consultant	Computer Science	The University of Western Ontario
05/1993 – 06/2002	Research Assistant	Computer Science	The University of Western Ontario

4. **PROFESSIONAL INTERESTS:**

Game Design and Technologies:

- Game analytics
- Adaptive game systems
- Believable agents and characters in games
- Automated difficulty adjustment in video games
- Content analysis for video games
- Algorithmic music composition/adaptation and interactive music
- Storytelling support and automation in games
- Serious games
- Virtual and augmented reality for entertainment and serious applications
- Network latency management for real-time networked games
- Game studies and curriculum in academia

5. **HONORS AND AWARDS**:

Date	Honour	Institution
11/2018	Innovation Ambassador	The University of Western Ontario
03/2017	University Student's Council Teaching Honour Roll	The University of Western Ontario
03/2017	Finalist, Business Achievement Award for Innovation (for Business Intelligence at Big Blue Bubble)	
11/2014	University Student's Council Teaching	The University of Western Ontario

	Honour Roll	
11/2012	University Student's Council Teaching	The University of Western Ontario
,	Honour Roll	,
02/2012	University Student's Council Teaching	The University of Western Ontario
	Honour Roll	,
08/2011	Best Paper Award	The 2011 GameOn Conference
08/2008	Best Paper Award (Nomination)	The 2008 GameOn North America
	,	Conference
08/2008	University Student's Council Teaching	The University of Western Ontario
	Honour Roll	•
09/2006	Forum Nokia Champion	Nokia
09/2006	Best Paper Award (Nomination)	The 2006 GameOn North America
	,	Conference
01/2006	Marilyn Robinson Award for Excellence	The University of Western Ontario
	In Teaching (Nomination)	•
09/2004	Award of Excellence in Undergraduate	The University of Western Ontario
	Teaching (Nomination)	
06/2004	Faculty of Science Award for Outreach	The University of Western Ontario
	and Recruitment	
04/2000	Computer Science Graduate Award	The University of Western Ontario
	of Excellence	
11/1999	Best Presentation Award	1999 University of Western Ontario
		Research in Computer Science
		Workshop
08/1999	University Student's Council Teaching	The University of Western Ontario
	Honour Roll	
01/1999 – 12/1999	IBM Research Fellowship	Centre for Advanced Studies, IBM
09/1998	Graduate Tuition Scholarship	The University of Western Ontario
09/1998	Special University Scholarship	The University of Western Ontario
06/1998	Faculty of Science Graduate Teaching	The University of Western Ontario
	Award	
01/1998 – 12/1998	IBM Research Fellowship	Centre for Advanced Studies, IBM
09/1997 – 08/1999	NSERC Post Graduate Scholarship	The University of Western Ontario
09/1997	Graduate Tuition Scholarship	The University of Western Ontario
09/1997	Special University Scholarship	The University of Western Ontario
01/1997 – 12/1997	IBM Research Fellowship	Centre for Advanced Studies, IBM
11/1996	Best Paper Award	The 1996 IBM Centre for Advanced
00/4000	O I I T ''' O I I I I	Studies Conference
09/1996	Graduate Tuition Scholarship	The University of Western Ontario
09/1996	Special University Scholarship	The University of Western Ontario
09/1995 – 08/1997	NSERC Post Graduate Scholarship	The University of Western Ontario
09/1995	Graduate Tuition Scholarship	The University of Western Ontario
09/1995	Special University Scholarship	The University of Western Ontario
06/1995	Governor General Academic Medal	The University of Western Ontario
06/1995	The J. N. Cold Model in Llanguage	The University of Western Ontario
06/1995	The UWO Gold Medal in Honours	The University of Western Ontario
00/1004 05/1005	Computer Science	The University of Western Ontaria
09/1994 – 05/1995	Computing Research Association Honourable Mention	The University of Western Ontario
05/1004 00/1004	NSERC Summer Undergraduate	The University of Western Ontario
05/1994 – 09/1994	Research Award	The University of Western Ontario
Fall 1003 Spring 1004		The University of Western Ontario
i ali 1990 - Spring 1994	Computer Science Edna Jeffery Scholarship	The University of Western Ontario
Fall 1993 - Spring 1994	• The UWO Faculty Association	The University of Western Ontario
Tall 1999 - Opining 1994	Scholarship	The University of Western Untano
Fall 1991 - Spring 1995		The University of Western Ontario
	Faculty of Science Ivan C. Rand	The University of Western Ontario
ran 1001 Opining 1000	Scholarship	The envelope of Western Ontario
	Conditionip	

6. **RESEARCH FUNDING:**

Year	Principle Investigators	Grantor	Title	Amount
2021	Amanda Grzyb Michael Katchabaw (Co-Applicant)	SSHRC (Partnership Grants)	Surviving Memory in Postwar El Salvador: An International Research Partnership	\$2,500,000
2021	Michael Katchabaw	MITACS (Accelerate)	Dynamic Scheduling of NPC Behaviours in Modern Video Games	\$30,000
2020	Jody Culham Michael Katchabaw (Co-Applicant)	New Frontiers in Research Fund	Naturalistic Cognitive Neuroscience Through Immersive Virtual Games	\$250,000
2020	Leora Swartzman Michael Katchabaw (Co-Investigator)	Western (Research Catalyst Grant)	A Needs Assessment for a Trial to Use Synchronous Video Technology (SVT) to Easily Connect Lonely Older Adults with Their Pre-Existing Social Support Networks	\$41,125
2019	Gabrielle Lee Michael Katchabaw (Collaborator)	SSHRC (Insight Development Grants)	Evaluating a Virtual Reality-based Instructional System for Children with Autism	\$53,875
2018	Big Blue Bubble Michael Katchabaw (Supervisor)	OCE '	Transparent Machine Learning for Game Analytics	\$20,000
2017	Michael Katchabaw	Big Blue Bubble	Transparent Machine Learning for Game Analytics	\$7,450
2016	Erin Heery et al. Michael Katchabaw (Co-Applicant)	SSHRC (Insight Development Grants)	Four-Minute First Impressions: Predicting Liking from Four-Minutes of Social Behaviour	\$74,906
2016	Charles Ling et al. Michael Katchabaw (Collaborator)	NSERC (I2I)	GlucoGuide+	\$125,000
2015	Michael Katchabaw	MITACS (Accelerate)	Integrating Computational Linguistics into Game Analytics	\$30,000
2015	Michael Katchabaw	NSERC (Engage)	Interactables for Virtual and Augmented Realities	\$25,000
2015	Michael Katchabaw	NSERC (Engage)	Workflow Authoring for Equipment Instruction, Maintenance, Troubleshooting and Management	\$25,000
2013	Eldon Loh at al. Michael Katchabaw	Western	Establishing the Western Collaboration for Integration of Consumer Technology	
2013	(Co-Investigator) Michael Katchabaw	Western	and Healthcare (CICTH) Research Grou Adaptive Narrative Structures in Modern Video Games	\$20,000
2012	Pauline Barmby et al. Michael Katchabaw (Co-Applicant)	Western	Probing Star Formations in Nearby Galaxies with Astroinformatics	\$83,937
2011	Mandar Jog and Michael Katchabaw (Co-PI)	Parkinson Society Canada	Novel Virtual Reality Based Training Program in Parkinson's Disease	\$43,425
2011	Andrew Hogue et al. Michael Katchabaw (Co-PI)	Ontario Media Development Corporation	Interactive Games Ontario 3D (IGO3D)	\$635,910 ¹
2010	Michael Katchabaw	Western	Algorithmic Music Evolution Engine: Prototyping and Development	\$24,000

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¹ The cash request from the Ontario Media Development Corporation for the entire project is \$249,967, with the remaining project budget coming from cash and in-kind contributions from the academic and industrial partners in the project.

2010 2009 2008	Michael Katchabaw Michael Katchabaw Kathryn Hibbert Michael Katchabaw (as collaborator)	C4 OCE SSHRC	Pop Tones Algorithmic Music Evolution Engine Money Matters: Advancing Adolescent Financial Literacy on Their Terms	\$11,000 \$30,000 \$24,845
2008	Michael Katchabaw	NSERC	Supporting Massively-Scaled Participatory Simulations	\$15,200 (per year for 5 years)
2007 2007	Michael Katchabaw Laura Jo Gunter et al. Michael Katchabaw (Co-PI)	NSERC (I2I) Heritage Canada	Algorithmic Music Evolution Engine CATGames: Creativity Assistive Tools for Games	\$125,000 \$1,557,738 ² (\$352,119 for Western)
2007	Interactive Ontario Michael Katchabaw (as partner)	Ministry of Research and Innovation	C3 Network (Connect, Construct and Commercialize)	\$300,000 (for the network ³)
2006	Condition30, Inc. Michael Katchabaw (as collaborator)	Telefilm	SuperGroup	\$415,000 (\$250,000 for R&D ⁴)
2006	Jennifer Jenson et al. Michael Katchabaw (as collaborator)	SSHRC (ITST Network Grants)	Turn It On: An Invitational Workshop On New Tools And Methods In Canadian Digital Games Research	\$50,000 (for the network ³)
2005	Michael Katchabaw (PI) Mark Daley	CITO	Algorithmic Music Evolution Engine	\$35,000
2005	Jim Parker et al. Michael Katchabaw (as collaborator)	SSHRC (ITST Network Grants)	The IMAGINE Network: Interactive Media, Applied Games, and Implicit Networked Applications	\$42,000 (for the network ³)
2004	Hanan Lutfiyya et al. Michael Katchabaw (Co-PI)	NSERC	Updating an Experimental Laboratory to Support Clusters in the Management of Distributed Applications	\$34,817
2003	Michael Katchabaw	NSERC	Autonomous Management of Modern Computing Environments	\$17,000 (per year for 5 years)
2002	Michael Katchabaw	Western	Start Up Funding	\$34,000

7. **PUBLICATIONS:**

a) Summary:

Chapters in Books: 8

Articles in Peer-Reviewed Journals: 9

Articles in Peer-Reviewed Conference Proceedings: 61 Articles in Non-Peer-Reviewed Conference Proceedings: 2 Abstracts, Presentations at Professional Meetings: 32

Technical Writings: 11 Theses/Dissertations: 1 Game Credits: 24

b) Details:

Chapters in Books and Symposia

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² The cash request from Heritage Canada for the entire project is \$1,084,780, with the remaining project budget coming from other cash and in-kind contributions. Western's portion of cash funding from Heritage Canada is \$264,283.

³ Funding for these network grants was primarily directed towards supporting the networks themselves, including items such as workshops or conferences, network websites, collaboration and communication, support personnel, and so on. Programs of research (joint or individual) were not directly supported by these funds.

⁴ Funding for this grant was primarily directed towards supporting research and development at Condition30, Inc. with whom interactions and collaborations have occurred as part of this project.

- 1. J. Tan, M. Katchabaw, and D. Slogar. Understanding Players and Play Through Game Analytics. *To Appear in Applied Data Science: Data Translators Across the Disciplines*. Edited by D. Woolford, D. Kotsopoulos, and B. Samuels. To Be Published by Springer, Interdisciplinary Applied Sciences, 2022.
- 2. L. Milambiling, M. Katchabaw, and D. Slogar. Integrating Social and Textual Analytics into Game Analytics. Appeared in *Data Analytics Applications in Gaming and Entertainment*, Edited by G. Wallner. Published by CRC Press, June 2019.
- 3. J. Forgette and M. Katchabaw. Learned Behavior: Enabling Believable Virtual Characters Through Reinforcement. Appeared in *Integrating Cognitive Architectures into Virtual Character Design*, Edited by J. Turner, M. Nixon, U. Bernardet, and S. DiPaola. Published by IGI Global, June 2016.
- 4. A. García, N. Andre, D. Bell Boucher, A. Roberts-South, M. Jog, and M. Katchabaw. Immersive Augmented Reality for Parkinson Disease Rehabilitation. Appeared in *Virtual and Augmented Reality in Healthcare*, Edited by M. Ma, L. Jain, A. Whitehead, and P. Anderson. Published by Springer, May 2014.
- M. Hoeberechts, J. Shantz, and M. Katchabaw. Delivering Interactive Experiences Through the Emotional Adaptation of Automatically Composed Music. Appeared in The Oxford Handbook of Interactive Audio, Edited by Karen Collins, Bill Kapralos, and Holly Tessler. Published by Oxford University Press, May 2014.
- C. Bailey, J. You, G. Acton, A. Rankin, and M. Katchabaw. Believability Through Psychosocial Behaviour: Creating Bots That Are More Engaging and Entertaining. Appeared in *Believable Bots: Can Computers Play Like People?* Edited by Philip Hingston. Springer, December 2012.
- 7. L. Gruenwoldt, S. Danton, and M. J. Katchabaw. Achieving Realistic Reactions in Modern Video Games. Appeared in *Worlds in Play*, Edited by Suzanne de Castell and Jennifer Jenson, Peter Lang Press, 2007, pp. 229-240.
- 8. M. J. Katchabaw, H. L. Lutfiyya, M. A. Bauer. A Model for Resource Management to Support Quality of Service in Electronic Commerce Applications. Appeared in *Electronic Commerce Technology Trends: Challenges and Opportunities*, Midrange Computing/IIR, 1999, pp. 239-254.

Papers in Peer-Reviewed Journals

- 9. J. Frasier, R. Mercer, and M. Katchabaw. A Methodological Approach to Identifying and Quantifying Video Game Difficulty Factors. *Entertainment Computing*. Volume 5, Issue 4, December 2014.
- 10. C. Bailey and M. J. Katchabaw. An Emergent Framework for Realistic Psychosocial Behaviour in Non Player Characters. *Loading ... The Journal of the Canadian Game Studies Association*, Volume 3, Number 5, December 2009, 18 pages (electronic jounal with no page numbering).
- 11. T. Bullen, M. J. Katchabaw, and N. Dyer-Witheford. Automating Content Analysis of Video Games. *Loading ... The Journal of the Canadian Game Studies Association*, Volume 1, Number 1, May 2007, 16 pages (electronic journal with no page numbering).
- 12. M. McLaughlin and M. J. Katchabaw. A Reusable Scripting Engine for Automating Cinematics and Cut-Scenes in Video Games. *Loading ... The Journal of the Canadian Game Studies Association*, Volume 1, Number 1, May 2007, 12 pages (electronic journal with no page numbering).
- 13. D. Reid and M. Katchabaw. Achieving Quality of Service through SCalable Aggregate Reservations. *INFOCOMP Journal of Computer Science*, Volume 5, Number 4, December 2006, pp. 9-18.
- 14. D. L. Martens and M. J. Katchabaw. Optimizing System Performance Through Dynamic Disk Scheduling Algorithm Selection. *WSEAS Transactions On Information Science And Applications*, Issue 7, Volume 3, July 2006, pp. 1361-1368.
- M. J. Katchabaw, H. L. Lutfiyya, and M. A. Bauer. Usage Based Service Differentiation for End-to-End Quality of Service Management. *Journal of Computer Communications*. Volume 28, Issue 18, November 2005, pp. 2146-2159.
- 16. M. J. Katchabaw, H. L. Lutfiyya, M. A. Bauer. Driving Resource Management With Application-Level Quality of Service Specifications. *Decision Support Systems*

- Journal, Volume 28, Issue 1-2, 2000, pp. 71-87.
- 17. M. J. Katchabaw, S. L. Howard, H. L. Lutfiyya, A. D. Marshall, M. A. Bauer. Making Distributed Applications Manageable Through Instrumentation. *Journal of Systems and Software*, Volume 45, Number 2, 1999, pp. 81-97.

Papers in Peer-Reviewed Conference Proceedings

- M. Babin and M. Katchabaw. Leveraging Reinforcement Learning and WaveFunctionCollapse for Improved Procedural Level Generation. Proceedings of The 16th Conference on the Foundations of Digital Games. Online Conference. August, 2021.
- N. Hoyte, C. Gittens, and M. Katchabaw. Simulating Visual Acuity for Autonomous Agents - A Data-Driven Approach. Proceedings of the 2019 ACM International Conference on Intelligent Virtual Agents. Paris, France. July 2019.
- X. Caddle, C. Gittens, and M. Katchabaw. A Psychometric Detection System to Create Dynamic Psychosocial Relationships Between Non-Player Characters. Proceedings of the 2018 IEEE Games, Entertainment, and Media Conference. Galway, Ireland. August 2018.
- A. Patrick, C. Gittens and M. Katchabaw. The Virtual Little Albert Experiment: Creating Conditioned Emotion Response in Virtual Agents. Proceedings of 2015 IEEE Games, Entertainment, and Media Conference, Toronto, Canada, October 2015.
- 22. B. Sarlo and M. Katchabaw. Artificial Society Generation for Modern Video Games. Proceedings of 2015 IEEE Games, Entertainment, and Media Conference, Toronto, Canada, October 2015.
- 23. M. Chowdhury and M. Katchabaw. An Emerging Automation Framework for Adaptive Video Games. Proceedings of The Seventh International Conference on Adaptive and Self-Adaptive Systems and Apps, Nice, France, March 2015.
- 24. J. Forgette and M. Katchabaw. Enabling Motivated Believable Agents with Reinforcement Learning. Proceedings of 2014 IEEE Games, Entertainment, and Media Conference. Toronto, Canada, October 2014.
- D. Bell Boucher, A. Roberts-South, A. Ayala García, M. Katchabaw, and M. Jog. Immersive Augmented Reality: Investigating a New Tool for Parkinson Disease Rehabilitation. Proceedings of the 6th International IEEE EMBS Conference on Neural Engineering. San Diego, California, November 2013.
- J. Frasier, R. Mercer, and M. Katchabaw. An Experimental Approach to Identifying Prominent Factors in Video Game Difficulty. Proceedings of the 10th International Conference on Advances in Computer Entertainment Technology. Enschede, Netherlands, November 2013.
- A. Kope, C. Rose, and M. Katchabaw. Modeling Autobiographical Memory for Believable Agents. Proceedings of the 9th AAAI Conference on Artificial Intelligence and Interactive Digital Entertainment (AIIDE'13). Boston, Massachusetts. October 2013.
- 28. M. Chowdhury and M. Katchabaw. Bringing Auto Dynamic Difficulty to Commercial Games: A Reusable Design Pattern Based Approach. Proceedings of the 18th International Conference on Computer Games: Al, Animation, Mobile, Interactive Multimedia, Educational and Serious Games. Louisville, Kentucky. July, 2013.
- 29. M. Chowdhury and M. Katchabaw. A Software Design Pattern Based Approach to Adaptive Games. Proceedings of The Fifth International Conference on Adaptive and Self-Adaptive Systems and Applications. Valencia, Spain. May 2013.
- 30. M. Chowdhury and M. Katchabaw. Improving Software Quality Through Design Patterns: A Case Study of Adaptive Games and Auto Dynamic Difficulty. Proceedings of GameOn 2012. Magala, Spain. November, 2012.
- M. Chowdhury and M. Katchabaw. Software Design Patterns for Enabling Auto Dynamic Difficulty in Video Games. Proceedings of the 17th International Conference on Computer Games: Al, Animation, Mobile, Interactive Multimedia, Educational and Serious Games. Louisville, Kentucky. July, 2012.
- 32. B. Srivastava, M. Katchabaw, and G. Geczy. Historical Accuracy In Grand Strategy Games: A Case Study Of Supreme Ruler: Cold War. Proceedings of GameOn

- 2011. Galway, Ireland, August 2011. (This paper received the Best Paper award at this conference.)
- 33. C. Bailey, J. You, G. Acton, A. Rankin, and M. Katchabaw. Immersion Through Believability: Using Realistic Character Behaviours to Enhance Gameplay Experiences. Proceedings of the 2011 International Conference on Interacting with Immersive Worlds. St. Catharines, Canada, June 2011.
- A. Rankin, G. Acton, and M. Katchabaw. A Scalable Approach To Believable Non Player Characters in Modern Video Games. Proceedings of GameOn 2010. Leicester, United Kingdom. November 2010.
- J. You and M. J. Katchabaw. A Flexible Multi-Model Approach To Psychosocial Integration In Non Player Characters In Modern Video Games. Proceedings of FuturePlay 2010. Vancouver, Canada. May 2010. 8 pages. (CD-ROM proceedings with no page numbering).
- 36. C. Bailey and M. J. Katchabaw. An Emergent Framework for Realistic Psychosocial Behaviour in Non Player Characters. Proceedings of FuturePlay 2008. Toronto, Canada, November 2008, 8 pages. (CD-ROM proceedings with no page numbering).
- 37. T. Bullen and M. J. Katchabaw. Using Genetic Algorithms to Evolve Character Behaviours in Modern Video Games. Proceedings of the 2008 GameOn North America Conference, Montreal, Canada, August 2008.
- 38. V. Bonduro and M. J. Katchabaw. Automating Cinematics and Cut Scenes in Video Games through Scripting with Active Performance Objects. Proceedings of the 2008 GameOn North America Conference, Montreal, Canada, August 2008.
- W. Zhang, M. McLaughlin, and M. J. Katchabaw. Story Scripting for Automating Cinematics and Cut-Scenes in Video Games. *Proceedings of FuturePlay 2007*. Toronto, Canada, November 2007, 8 pages. (CD-ROM proceedings with no page numbering).
- 40. S. Phillips, H. L. Lutfiyya, and M. J. Katchabaw. WLocator: An Indoor Positioning System. *Proceedings of the Third International Conference on Wireless and Mobile Computing, Networking, and Communications*. New York, New York, October 2007, 9 pages. *(CD-ROM proceedings with no page numbering)*.
- 41. R. Demopoulos and M. J. Katchabaw. MUSIDO: A Framework for Musical Data Organization to Support Automatic Music Composition. *Proceedings of Audio Mostly 2007: The Second Conference on Interaction with Sound.* Ilmenau, Germany, September 2007, pp. 66-71.
- 42. M. Hoeberechts, R. Demopoulos, and M. J. Katchabaw. A Flexible Music Composition Engine. *Proceedings of Audio Mostly 2007: The Second Conference on Interaction with Sound.* Ilmenau, Germany, September 2007, pp. 52-57.
- 43. A. Raja and M. J. Katchabaw. Using Synthetic Players to Generate Workloads for Networked Multiplayer Games. *Proceedings of the 2007 GameOn North America Conference*, Gainesville, Florida, September 2007, pp. 70-74.
- 44. D. Santoni and M. J. Katchabaw. Resource Matching in a Peer-to-Peer Computational Framework. *Proceedings of the 2007 International Conference on Internet Computing*. Las Vegas, Nevada, June 2007, pp. 89-95.
- 45. T. Bullen, M. J. Katchabaw, and N. Dyer-Witheford. Instrumentation of Video Game Software to Support Automated Content Analyses. *Proceedings of the 2006 GameOn North America Conference*, Monterey, California, September 2006, pp. 34-38.
- 46. S. Burgess and M. J. Katchabaw. Design and Implementation of Optimism Constructs for Latency Masking in Online Video Games. *Proceedings of the 2006 GameOn North America Conference*, Monterey, California, September 2006, pp. 39-46. (This paper was nominated for the Best Paper award at this conference.)
- 47. D. L. Martens and M. J. Katchabaw. Disk Access Analysis for System Performance Optimization. *Proceedings of the 5th WSEAS International Conference on Applied Computer Science*. Hangzhou, China, April, 2006, pp. 217-222.
- 48. G. Shelley and M. J. Katchabaw. Patterns of Optimism for Reducing the Effects of Latency in Networked Multiplayer Games. *Proceedings of FuturePlay 2005*, East Lansing, Michigan, October 2005, 12 pages (CD-ROM proceedings with no page numbering).

- 49. C. Bailey and M. J. Katchabaw. An Experimental Testbed to Enable Auto-Dynamic Difficulty in Modern Video Games. *Proceedings of the 2005 GameOn North America Conference*, Montreal, Canada, August 2005, pp. 18-22.
- 50. L. Gruenwoldt, S. Danton, and M. J. Katchabaw. Creating Reactive Non Player Character Artificial Intelligence in Modern Video Games. *Proceedings of the 2005 GameOn North America Conference*, Montreal, Canada, August 2005, pp. 10-17.
- 51. S. Cuddy, M. Katchabaw, and H. Lutfiyya. Context-Aware Service Selection Based on Dynamic and Static Service Attributes. *Proceedings of the IEEE International Conference on Wireless and Mobile Computing, Networking and Communications*, Montreal, Canada, August 2005, Volume 4, pp. 13-20.
- 52. S. Norman, M. Katchabaw, and H. Lutfiyya. Taking Dependencies into Account in Grid Resource Allocation. *Proceedings of the 12th HP OpenView University Association Workshop*, Porto, Portugal, July 2005, pp.225-236.
- 53. D. Reid and M. Katchabaw. SCAR: A Stateless Approach to Achieving Scalable Quality of Service. *Proceedings of the 2005 International Conference on Internet Computing*. Las Vegas, Nevada, June 2005, pp.339-347.
- 54. B. Huang, M. Bauer, and M. Katchabaw. Network Performance in Distributed HPC Clusters. *Proceedings of the 2005 International Conference on Parallel and Distributed Processing Techniques and Applications*, Las Vegas, Nevada, June 2005, pp.546-549.
- 55. B. Huang, M. Bauer, and M. Katchabaw. Network Performance in High Performance Linux Clusters. *Proceedings of the 2005 International Conference on Parallel and Distributed Processing Techniques and Applications*, Las Vegas, Nevada, June 2005, pp. 550-556.
- 56. M. J. Katchabaw and D. Elliott. Neomancer: An Exercise in Interdisciplinary Academic Game Development. *Proceedings of the Digital Games Research Association Conference*, Vancouver, Canada, June 2005, 9 pages (CD-ROM proceedings with no page numbering).
- 57. R. Hanna and M. J. Katchabaw. Bringing New HOPE to Networked Games: Using Optimistic Execution to Improve Quality of Service. *Proceedings of the Digital Games Research Association Conference*, Vancouver, Canada, June 2005, 8 pages (CD-ROM proceedings with no page numbering).
- 58. L. Gruenwoldt, S. Danton, and M. J. Katchabaw. A Realistic Reaction System for Modern Video Games. *Proceedings of the Digital Games Research Association Conference*, Vancouver, Canada, June 2005, 9 pages (*CD-ROM proceedings with no page numbering*).
- 59. B. Huang, M. Bauer, and M. Katchabaw. Hpcbench A Linux-Based Network Benchmark for High Performance Networks. *Proceedings of the 19th International Symposium on High Performance Computing Systems and Applications*, Guelph, Canada, May 2005, pp.65-71.
- 60. M. J. Katchabaw, H. L. Lutfiyya, and M. A. Bauer. Administrative Policies to Regulate Quality of Service Management in Distributed Multimedia Applications. *Proceedings of the 6th IFIP/IEEE International Conference on Management of Multimedia Networks and Services*, Belfast, Northern Ireland, September 2003, pp.341-354.
- 61. M. J. Katchabaw, H. L. Lutfiyya, and M. A. Bauer. Usage Based Service Differentiation for End-to-End Quality of Service Management. *Proceedings of the 2003 Workshop on End-to-End Service Differentiation (in conjunction with the 21st IEEE International Performance, Computing, and Communications Conference)*, Phoenix, Arizona, April 2003, pp. 512-520.
- 62. G. P. Molenkamp, H. L. Lutfiyya, M. J. Katchabaw, and M. A. Bauer. Diagnosing Quality of Service Faults in Distributed Applications. *Proceedings of the 20th IEEE International Performance, Computing, and Communications Conference*, Phoenix, Arizona, April 2002, pp. 375-382.
- 63. G. P. Molenkamp, M. J. Katchabaw, H. L. Lutfiyya, and M. A. Bauer. Distributed Resource Management to Support Distributed Application-Specific Quality of Service. *Proceedings of the Fourth IFIP/IEEE International Conference on Management of Multimedia Networks and Services*, Chicago, Illinois, October 2001, pp. 142-159.

- 64. H. L. Lutfiyya, G. P. Molenkamp, M. J. Katchabaw, and M. A. Bauer. Issues in Managing Soft QoS Requirements in Distributed Systems Using a Policy-Based Framework. *Proceedings of the International Workshop on Policies*, Bristol, England, January 2001, pp. 185-201.
- 65. G. P. Molenkamp, M. J. Katchabaw, H. L. Lutfiyya, and M. A. Bauer. Managing Soft QoS Requirements in Distributed Systems. *Proceedings of Multimedia Systems Workshop (ICPP)*, Toronto, Canada, August 2000, pp. 461-468.
- 66. M. J. Katchabaw, H. L. Lutfiyya, M. A. Bauer. Using User Hints to Guide Resource Management for Quality of Service. *Proceedings of the International Conference on Parallel and Distributed Processing Techniques and Applications*, Las Vegas, Nevada, June 1999, pp. 1069-1075.
- 67. M. J. Katchabaw, H. L. Lutfiyya, M. A. Bauer. Driving Resource Management With Application-Level Quality of Service Specifications. *Proceedings of the First International Conference on Information and Computation Economies,* Charleston, South Carolina, October 1998, pp. 83-91.
- 68. M. J. Katchabaw, H. L. Lutfiyya, M. A. Bauer. A Model for Resource Management to Support End-to-End Application-Driven Quality of Service. *Proceedings of the 10th International Conference on Parallel and Distributed Computing and Systems,* Las Vegas, Nevada, October 1998, pp. 121-130.
- 69. M. J. Katchabaw, H. L. Lutfiyya, M. A. Bauer. A Quality of Service Management Testbed. *Proceedings of the Third International Workshop on Systems Management*, Newport, Rhode Island, April 1998, pp. 57-67.
- 70. M. J. Katchabaw, S. L. Howard, H. L. Lutfiyya, A. D. Marshall, M. A. Bauer. Making Distributed Applications Manageable Through Instrumentation. *Proceedings of the 1997 Workshop on Parallel and Distributed Software Engineering*, Boston, Massachusetts, May 1997, pp. 84-94.
- 71. S. L. Howard, H. L. Lutfiyya, M. J. Katchabaw, M. A. Bauer. Supporting Dynamic Policy Change Using CORBA System Management Facilities. *IEEE International Symposium on Integrated Network Management*, San Diego, California, May 1997, pp. 527-538.
- 72. M. J. Katchabaw, S. L. Howard, A. D. Marshall, M. A. Bauer. Evaluating the Costs of Management: A Distributed Applications Management Testbed. *Proceedings of the 1996 IBM Centre for Advanced Studies Conference*, Toronto, Canada, November 1996, pp. 29-41. (This paper received the Best Paper award at this conference.)
- 73. M. J. Katchabaw, H. L. Lutfiyya, A. D. Marshall, M. A. Bauer. Policy-Driven Fault Management in Distributed Systems. *Proceedings of the International Symposium on Software Reliability Engineering,* White Plains, New York, November 1996, pp. 236-245.
- 74. M. J. Katchabaw, S. L. Howard, H. L. Lutfiyya, M. A. Bauer. Efficient Management Data Acquisition and Run-time Control of DCE Applications Using the OSI Management Framework. *Proceedings of the Second International Workshop on Systems Management*, Toronto, Canada, June 1996, pp. 104-111.
- A. D. Marshall, M. J. Katchabaw, M. A. Bauer. Using Software Metrics Tools for Maintenance Decisions: A Classroom Exercise. *Proceedings of the International* Symposium on the Assessment of Software Tools, Toronto, Canada, May 1996, pp. 47-58.
- 76. M. J. Katchabaw, M. M. Khurana, J. W. Hong, M. A. Bauer. Interworking of Traders in a Distributed Computing Environment. *Proceedings of the 1995 IBM Centre for Advanced Studies Conference*, Toronto, Canada, November 1995, pp. 1-12.
- 77. M. J. Katchabaw, J. W. Hong, M. A. Bauer. Behavioural Specification and Notification Enhancements to GDMO. *Proceedings of the 1995 International Workshop on Distributed Systems Operations and Management*, Ottawa, Canada, October 1995, Section 6.3, 10 pages (printed proceedings with no page numbering).
- 78. J. W. Hong, M. J. Katchabaw, M. A. Bauer, H. Lutfiyya. Modeling and Management of Distributed Applications and Services Using the OSI Management Framework. *Proceedings of the International Conference on Computer Communication,* Seoul, Korea, August 1995, pp. 215-220.

- 79. M. Jog, A. South, H. Kumar, M. J. Katchabaw, G. Kapp, and V. Vujcic. Navigation in a Virtual Environment in Parkinson's Disease. Proceedings of the 2010 World Parkinson Congress. Glasgow, Scotland, September 2010.
- 80. M. Jog, A. South, H. Kumar, M. J. Katchabaw, G. Kapp, and V. Vujcic. Navigation in a Virtual Environment in Parkinson's Disease. Proceedings of the Society for Neuroscience 2010 Annual Meeting. San Diego California, November 2010.

<u>Invited Abstracts, Presentations to Professional Meetings</u>

- 81. M. Katchabaw. Innovation in Software. Presented at the Innovation Ambassadors Monthly Speaker Series. London, Canada, October 2021.
- 82. M. Katchabaw. Modeling LTV for Mobile Game Development. Presented at the 2017 Industry Problem Solving Week. London, Canada, February 2017.
- 83. M. Katchabaw. Monetization Design for Gaming. Presented as a TechAlliance Fireside Chat. London, Canada, February 2017.
- 84. M. Katchabaw. From Data to Knowledge to Innovation. Presented at Fusion 2017. Waterloo, Canada, February 2017.
- 85. M. Katchabaw. Games for Learning. Presented at Teaching with Technology 2015. London, Canada, May 2015.
- 86. D. Bell Boucher, A. Roberts-South, A. Garcia, M. Katchabaw, and M. Jog. Investigating Augmented Immersion Virtual Reality as a Rehabilitation Tool for Parkinson Disease. Presented at London Health Research Day. London, Canada, March 2013.
- 87. M. J. Katchabaw. When Games Save Lives. Presented at Discovery Café for Science. London, Canada, November 2012.
- 88. M. J. Katchabaw. Tools of the Trade for Programming Video Games. Presented at DIG London 2012. London, Canada, November 2012.
- 89. A. Ayala Garcia, N. Andre, M. Katchabaw, A. Roberts-South, and M. Jog. Bringing Real Context with a Virtual World: New Rehabilitation Strategies for Parkinson Disease. Presented at the 2012 Western Research Showcase, London, Canada, March 2012.
- 90. M. J. Katchabaw. Tools of the Trade for Programming Video Games. Presented at DIG London 2011. London, Canada, November 2011.
- 91. M. J. Katchabaw and M. Daley. Abort, Retry, Fail? Why Computer Science is an Essential Part of Every Science Education. Presented at the 2011 Western Conference on Science Education. London, Canada. June 2011.
- 92. M. J. Katchabaw. Fun and Games and Science. Presented at Science Exposed. London, Canada. March 2011.
- 93. C. Bailey, J. You, G. Acton, A. Rankin, and M. J. Katchabaw. Achieving Believable Psychosocial Behaviour in Non-Player Characters in Modern Video Games. Presented at the Canadian Game Studies Association 2010 Conference. Montreal, Canada, May 2010.
- 94. T. Bullen, M. J. Katchabaw, and N. Dyer-Witheford. Software Instrumentation of Computer and Video Games. Presented at the Systems Software Engineering Workshop at the 2008 CSER Researchers Meeting. London, Canada, June 2008.
- 95. M. J. Katchabaw. Playing for Keeps: Virtual Worlds in a Digital Age. Presented at the Scientific Journey: The Digital Age. London, Canada, May 2008.
- 96. M. J. Katchabaw. Serious Games: From Serious Fun to Serious Impact. Presented at the 2007 Educational Computing Organization of Ontario Annual Conference, Toronto, Canada, November 2007.
- 97. M. J. Katchabaw. Supporting Content Creation for Games through Assistive Technologies. Presented at Playing the Gallery. London, Canada, October 2007.
- 98. T. Bullen, M. J. Katchabaw, and N. Dyer-Witheford. Automating Content Analysis of Video Games. Presented at the 2006 Canadian Game Studies Association Symposium⁵, Toronto, Canada, September 2006.

⁵ Presentation of research and results from [28].

- 99. M. McLaughlin and M. J. Katchabaw. A Reusable Scripting Engine for Automating Cinematics and Cut-Scenes in Video Games. Presented at the 2006 Canadian Game Studies Association Symposium⁶, Toronto, Canada, September 2006.
- 100. M. J. Katchabaw. Game Development Projects in Schools: Tools, Techniques, and Tips. Presented at the 2006 Educational Computing Organization of Ontario Annual Conference, Toronto, Canada, May 2006.
- 101. M. Hoeberechts and M. J. Katchabaw. Biocomputing: Using DNA to Solve Problems. Presented at the 2005 Science Teachers Association of Ontario Annual Conference, Toronto, Canada, November 2005.
- 102. M. J. Katchabaw. Game Development in Computer Science Education. Presented at the 2005 Educational Computing Organization of Ontario Annual Conference, Toronto, Canada, May 2005.
- 103. M. J. Katchabaw. Mobile and Wireless Computing. Presented at the 2004 Science Teachers Association of Ontario Annual Conference, Toronto, Canada, November 2004.
- 104. M. J. Katchabaw. A First Course in Video Game Design. Presented at the Second Annual Computer Game Technology Conference, Sault Ste. Marie, Canada, April 2003.
- 105. M. J. Katchabaw, G. P. Molenkamp, H. L. Lutfiyya, M. A. Bauer. QoS Management: A Policy Driven Approach. Poster presentation at the 2000 IBM Centre for Advanced Studies Conference, Toronto, Canada, November 2000.
- 106. M. J. Katchabaw. Policy Based Quality of Service Management. Presented at the 2000 University of Western Ontario Research in Computer Science Workshop (UWORCS 2000). London, Canada, September 2000.
- 107. M. J. Katchabaw. User Hints: An Informed Approach to Quality of Service Resource Management. Workshop presentation at the 1999 IBM Centre for Advanced Studies Conference. Toronto. Canada. November 1999.
- 108. M. J. Katchabaw, H. L. Lutfiyya, M. A. Bauer. Dynamic Memory Management for Quality of Service Provisioning. Poster presentation at the 1999 IBM Centre for Advanced Studies Conference, Toronto, Canada, November 1999.
- 109. M. J. Katchabaw. User Hints: An Informed Approach to Quality of Service Resource Management. Presented at the 1999 University of Western Ontario Research in Computer Science Workshop (UWORCS'99). London, Canada, November 1999. (This presentation received the Best Presentation award at this workshop.)
- 110. G. P. Molenkamp, M. J. Katchabaw, H. L. Lutfiyya, M. A. Bauer. Policy-Driven Quality of Service Management. Poster presentation at the 1999 CITO Research Forum. Ottawa, Canada, May 1999.
- 111. M. J. Katchabaw. A Model for Resource Management to Support Quality of Service in Electronic Commerce Applications. Presented at the First International Workshop on the Technological Challenges of Electronic Commerce. Toronto, Canada, Sept. 1998.
- 112. M. J. Katchabaw. Investigating the Impact of End-System Utilization on Application Quality of Service. Presented at the 1997 University of Western Ontario Research in Computer Science Workshop (UWORCS'97). London, Canada, November 1997.

Technical Writings

113. R. J. Demopoulos and M. J. Katchabaw. Music Information Retrieval: A Survey of Issues and Approaches. Technical Report #677, Department of Computer Science, The University of Western Ontario, London, Canada, January 2007, 72 pages.

114. D. Reid, M. J. Katchabaw. Internet QoS: Past, Present, and Future. Technical Report #625, Department of Computer Science, The University of Western Ontario, London, Canada, June 2004, 25 pages.

115. M. J. Katchabaw, H. L. Lutfiyya, M. A. Bauer. More on Usage Based Service Differentiation for End-to-End Quality of Service Management. Technical Report #608, Department of Computer Science, The University of Western Ontario, London, Canada, November 2003, 20 pages.

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⁶ Presentation of research and results from [22].

- 116. M. J. Katchabaw, H. L. Lutfiyya, and M. A. Bauer. Administrative Policies to Regulate Quality of Service Management in Distributed Multimedia Applications. Technical Report #596, Department of Computer Science, The University of Western Ontario, London, Canada, July 2003, 20 pages.
- 117. M. J. Katchabaw, H. L. Lutfiyya, M. A. Bauer. Usage Based Service Differentiation for End-to-End Quality of Service Management. Technical Report #587, Department of Computer Science, The University of Western Ontario, London, Canada, January 2003, 17 pages.
- 118. H. L. Lutfiyya, G. P. Molenkamp, M. J. Katchabaw, M. A. Bauer. Managing Quality of Service Requirements. Technical Report #547, Department of Computer Science, The University of Western Ontario, London, Canada, November 1999, 21 pages.
- 119. M. J. Katchabaw, H. L. Lutfiyya, M. A. Bauer. Memory Management for Quality of Service Provisioning. Technical Report #546, Department of Computer Science, The University of Western Ontario, London, Canada, November 1999, 26 pages.
- 120. M. J. Katchabaw, H. L. Lutfiyya, M. A. Bauer. A Survey of Windowing Environment Usage Patterns. Technical Report #540, Department of Computer Science, The University of Western Ontario, London, Canada, November 1999, 37 pages.
- 121. M. J. Katchabaw, H. L. Lutfiyya, M. A. Bauer. A Model for Resource Management to Support End-to-End Application-Driven Quality of Service. Technical Report #528, Department of Computer Science, The University of Western Ontario, London, Canada, July 1998, 15 pages.
- 122. J. W. Hong, M. J. Katchabaw, M. A. Bauer, H. L. Lutfiyya. Distributed Applications Management Using The OSI Management Framework. Technical Report #448, Department of Computer Science, The University of Western Ontario, London, Canada, January 1995, 22 pages.
- 123. J. W. Hong, M. A. Bauer, J. A. O'Neill, M. J. Katchabaw. The X.500 Directory Service Testbed. Technical Report #365, Department of Computer Science, The University of Western Ontario, London, Canada, January 1995, 127 pages.

Theses/Dissertations

124. M. J. Katchabaw. Quality of Service Resource Management. Ph.D. Thesis, Department of Computer Science, The University of Western Ontario, June 2002, 294 pages.

Game Credits

- 125. Big Blue Bubble, Inc. (with M. Katchabaw as Business Intelligence Director). My Singing Monsters Playground, v.1.0.0. Published November 2021.
- 126. Big Blue Bubble, Inc. (with M. Katchabaw as Business Intelligence Director). Power Chord (Steam Demo), v.1.0.0. Published October 2021.
- 127. Big Blue Bubble, Inc. (with M. Katchabaw as Business Intelligence Director). My Singing Monsters PC, v.3.0.5 v.3.3.2. Published March 2021 October 2021.
- 128. Big Blue Bubble, Inc. (with M. Katchabaw as Business Intelligence Director). Foregone, v.1.0.0 v1.1.0.4. Published February 2020 March 2021.
- 129. Big Blue Bubble, Inc. (with M. Katchabaw as Business Intelligence Director). Concert Kings Idle Music Tycoon, v.1.0.0 – 1.4.0. Published November 2019 – November 2020.
- 130. Big Blue Bubble, Inc. (with M. Katchabaw as Business Intelligence Director). Super Dinosaur: Kickin' Tail, v.1.0.0 1.0.6. Published October 2018 May 2019.
- 131. Big Blue Bubble, Inc. (with M. Katchabaw as Business Intelligence Director). Chaos Reborn: Adventures, v.1.0.1. Published September 2018.
- 132. Big Blue Bubble, Inc. (with M. Katchabaw as Business Intelligence Director). Concert Kings, v.1.0.0 1.2.1. Published June 2018 June 2019.
- 133. Big Blue Bubble, Inc. (with M. Katchabaw as Business Intelligence Director). My Singing Monsters Composer, v.1.0 1.2.1. Published April 2018 September 2019
- 134. Big Blue Bubble, Inc. (with M. Katchabaw as Business Intelligence Director). Zombie Bloxx, v.1.0.0 2.0.0. Published November 2017 June 2018.

- 135. Big Blue Bubble, Inc. (with M. Katchabaw as Business Intelligence Director). Wrecking Squad, v.1.0 1.3.1. Published October 2017 March 2018.
- 136. Big Blue Bubble, Inc. (with M. Katchabaw as Business Intelligence Director). Short Fused, v.1.0 v.2.0.0. Published October 2017 June 2018.
- 137. Big Blue Bubble, Inc. (with M. Katchabaw as Business Intelligence Director). Jungle Guardians, v.2017.10.13 2018.04.26. Published October 2017 April 2018.
- 138. Big Blue Bubble, Inc. (with M. Katchabaw as Business Intelligence Director). Home Arcade, v.1.0 v.1.2.0. Published December 2017.
- 139. Big Blue Bubble, Inc. (with M. Katchabaw as Business Intelligence Director). My Singing Monsters: Official Guide, v.1.0 v.1.3. Published June 2017 July 2018.
- 140. Big Blue Bubble, Inc. (with M. Katchabaw as Business Intelligence Director). My Singing Monsters: Coloring Book, v.1.0.0 – v.1.1.1. Published December 2016 – April 2017.
- 141. Big Blue Bubble, Inc. (with M. Katchabaw as Business Intelligence Director). Jammer Splash, v.2.0.20 v.2.8.1. Published November 2016 April 2018.
- 142. Big Blue Bubble, Inc. (with M. Katchabaw as Business Intelligence Director). My Singing Monsters: Dawn of Fire, v.1.8.0 v.2.7.1. Published October 2016 August 2021.
- 143. Big Blue Bubble, Inc. (with M. Katchabaw as Business Intelligence Director). My Singing Monsters, v.2.0.1 v.3.3.2. Published September 2016 October 2021.
- 144. Big Blue Bubble, Inc. (with M. Katchabaw as Business Intelligence Director). Pixel Dodgers, v.1.01 v.1.5. Published September 2016 June 2017.
- 145. M. Hoeberechts et al. (with M. Katchabaw as Special Advisor). Pop Tones. Published May 2014.
- 146. Freebird Games (with M. Katchabaw as Project Consultant). To The Moon. February 2012.
- 147. Big Blue Bubble, Inc. (with M. Katchabaw as Quality Assurance). iCarly: iJoin the Click. Published by Activision for the Nintendo Wii and Nintendo DS. November 2010.
- 148. Big Blue Bubble, Inc. (with M. Katchabaw as Lead Programmer). *Animal Planet Vet Life*. Published by Activision for the Nintendo Wii and Nintendo DS. September, 2009.

8. OTHER RESEARCH AND PROFESSIONAL ACTIVITIES:

a) Commercialization of Research Results

The results of the CITO-funded Algorithmic Music Evolution Engine project (software, algorithms, and related technologies) are currently in the commercialization pipeline at the World Discoveries for the University of Western Ontario. This includes patent protection (with patent already filed: A Flexible Music Composition Engine, WO2009036564), trade-marking, licensing to industry, and securing funding for further development.

b) Research Grant Application Refereeing

01/2016	NSERC Discovery Grants	Referee
01/2015	NSERC Discovery Grants	Referee
10/2014	MITACS Accelerate	Referee
01/2014	NSERC Discovery Grants	Referee
06/2013	MITACS Accelerate	Referee
01/2013	NSERC Discovery Grants	Referee
09/2012	MITACS Accelerate (Cluster)	Referee
01/2012	NSERC College and Community Innovation Grants	Referee
01/2012	NSERC Discovery Grants	Referee
11/2011	UWO Faculty of Science ADF Major Grants	Referee
10/2011	UWO Faculty of Science ADF Small Grants	Referee
08/2011	UWO Faculty of Science Re-Discovery Grants	Referee
03/2011	UWO Faculty of Science ADF Small Grants	Referee
01/2011	NSERC Discovery Grants	Referee
11/2010	UWO Faculty of Science ADF Major Grants	Referee
10/2010	UWO Faculty of Science ADF Small Grants	Referee
08/2010	UWO Faculty of Science Re-Discovery Grants	Referee
07/2010	NSERC Strategic Projects Program	Referee
03/2010	MITACS Accelerate	Referee
01/2010	NSERC Discovery Grants	Referee
10/2009	MITACS Accelerate	Referee
07/2009	NSERC Strategic Projects Program	Referee
01/2009	NSERC Discovery Grants	Referee
07/2008	NSERC Strategic Projects Program	Referee
01/2008	NSERC Discovery Grants	Referee
07/2007	NSERC Strategic Projects Program	Referee
01/2007	CITO Research Partnership Program	Referee
01/2007	NSERC Discovery Grants	Referee
07/2006	NSERC Strategic Projects Program	Referee
02/2006	CITO Research Partnership Program	Referee
01/2006	NSERC Discovery Grants	Referee
09/2005	CITO Research Partnership Program	Referee
01/2005	NSERC CRD Grants	Referee
03/2004	CITO Research Partnership Program	Referee
01/2004	UWO ADF Computing-related Applications	Referee
09/2003	CITO Research Partnership Program	Referee
04/2003	SHARCNET Fellowships Program	Referee

Since February 2013, have served on the MITACS College of Reviewers.

c) Organizing and Technical Program Committee Memberships

Date	Venue	Role
06/2021	2021 GameOn Conference	Technical Program
06/2021	Game and Entertainment Technologies 2021	Committee Member Technical Program Committee Member
08/2020	ADAPTIVE 2020: The Twelfth International Conference on	Technical Program
06/2020	Adaptive and Self-Adaptive Systems and Applications 2020 GameOn Conference	Committee Member Technical Program
06/2020	Game and Entertainment Technologies 2020	Committee Member Technical Program Committee Member
02/2020	SIMULTECH 2020	Technical Program Committee Member
10/2019	10th IEEE Annual Information Technology, Electronics, and Mobile Communication Conference	Technical Program Committee Member

09/2019	2019 GameOn Conference	Technical Program
08/2019	The 28th International Joint Conference on Artificial Intelligence	Committee Member Technical Program
07/2019	Game and Entertainment Technologies 2019	Committee Member Technical Program
07/2019	SIMULTECH 2019	Committee Member Technical Program
06/2018	IEEE Games, Entertainment, and Media 2019	Committee Member Technical Program
10/2018	Meaningful Play 2018	Committee Member Technical Program
09/2018	2018 GameOn Conference	Committee Member Technical Program
		Committee Member Technical Program
08/2018	IEEE Games, Entertainment, and Media 2018	Committee Member
07/2018	Game and Entertainment Technologies 2018	Technical Program Committee Member
09/2017	2017 GameOn Conference	Technical Program Committee Member
07/2017	Game and Entertainment Technologies 2017	Technical Program
00/00/17	ADADTINE COAT TO AN ALL AND ALL AND A	Committee Member
02/2017	ADAPTIVE 2017: The Ninth International Conference on Adaptive and Self-Adaptive Systems and Applications	Technical Program Committee Member
09/2016	2016 GameOn Conference	Technical Program
00/2010	2010 Gameon Comercino	Committee Member
07/2016	Game and Entertainment Technologies 2016	Technical Program
		Committee Member
03/2016	ADAPTIVE 2016: The Eigth International Conference on	Technical Program
10/0015	Adaptive and Self-Adaptive Systems and Applications	Committee Member
12/2015	2015 GameOn Conference	Technical Program Committee Member
10/2015	IEEE Games, Entertainment, and Media 2015	Technical Program
.0,20.0		Committee Member
07/2015	Game and Entertainment Technologies 2015	Technical Program
		Committee Member
03/2015	ADAPTIVE 2015: The Seventh International Conference on	Technical Program
10/2014	Adaptive and Self-Adaptive Systems and Applications IEEE Games, Entertainment, and Media 2014	Committee Member Technical Program
10/2014	ILLE Games, Entertainment, and Media 2014	Committee Member
10/2014	CHI Play 2014	Technical Program
		Committee Member
09/2014	2014 GameOn Conference	Technical Program
07/00//	0 15 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Committee Member
07/2014	Game and Entertainment Technologies 2014	Technical Program Committee Member
06/2014	Engineering Interactive Computing Systems 2014	Technical Program
00/2014	Engineering interactive Computing Systems 2014	Committee Member
05/2014	ADAPTIVE 2014: The Sixth International Conference on	Technical Program
	Adaptive and Self-Adaptive Systems and Applications	Committee Member
03/2014	DIG London 2014	Organizing
11/2013	2013 GameOn Conference	Committee Member Technical Program
11/2013	2013 GameOn Comerence	Committee Member
07/2013	IADIS Game and Entertainment Technologies 2013	Technical Program
	·	Committee Member
11/2012	2012 GameOn Conference	Technical Program
11/2012	DIG London 2012	Committee Member
11/2012	DIG LUNUUN ZUNZ	Organizing

10/2012	Magningful Play 2012	Committee Member
10/2012	Meaningful Play 2012	Technical Program Committee Member
08/2012	2012 GameOn North America Conference	Technical Program
		Committee Member
07/2012	IADIS Game and Entertainment Technologies 2012	Technical Program
03/2012	2012 GameOn Asia Conference	Committee Member
03/2012	2012 GaineOn Asia Conference	Technical Program Committee Member
11/2011	2011 GameOn Conference	Technical Program
		Committee Member
11/2011	DIG London 2011	Organizing
08/2011	2011 GameOn North America Conference	Committee Member Technical Program
00/2011	2011 Gameon North America Conference	Committee Member
03/2011	2011 GameOn Asia Conference	Technical Program
		Committee Member
11/2010	2010 GameOn Conference	Technical Program
11/2010	DIG London 2010	Committee Member Organizing
11/2010	DIG Edition 2010	Committee Member
10/2010	Meaningful Play 2010	Technical Program
		Committee Member
08/2010	2010 GameOn North America Conference	Technical Program Committee Member
08/2010	Edutainment 2010	Technical Program
00/2010	Eddiamnon 2010	Committee Member
05/2010	2010 Future Play Conference	Technical Program
00/0040		Committee Member
03/2010	Second International Conference on Resource Intensive Applications and Services	Technical Program Committee Member
11/2009	DIG London 2009	Organizing
		Committee Member
11/2009	2009 GameOn Conference	Technical Program
05/2010	2000 Future Play Conference	Committee Member
05/2010	2009 Future Play Conference	Technical Program Committee Member
04/2009	The First International Conference on Intensive Applications	Technical Program
	and Services	Committee Member
11/2008	DIG London 2008	Organizing
11/2008	2009 Futuro Play Conformes	Committee Member Co-Chair
11/2008	2008 Future Play Conference 2008 GameOn Conference	Technical Program
		Committee Member
10/2008	International Conference on Advances in Human-oriented and	Technical Program
40/0000	Personalized Mechanisms, Technologies, and Services	Committee Member
10/2008	CyberGames 2008: International Conference on Games Research and Development	Technical Program Committee Member
08/2008	2008 GameOn North America Conference	Technical Program
		Committee Member
06/2008	Entertainment Systems 2008, Track at the International	Special Session
06/2008	Conference on Internet and Web Applications and Services Edutainment 2008: The Third International Conference	Chair Technical Program
00/2000	on E-Learning and Games	Technical Program Committee Member
06/2008	The Third International Conference on Internet and Web	Technical Program
0.4.10.5.5.5	Applications and Services	Committee Member
01/2008	First IEEE International Workshop on Digital Entertainment,	Technical Program Committee Member
11/2007	Networked Virtual Environments, and Creative Technology 2007 GameOn Conference	Technical Program
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10/2007 09/2007	2007 Future Play Conference CyberGames 2007: International Conference on Games Research and Development	Committee Member Co-Chair Technical Program Committee Member
09/2007	NetGames 2007	Technical Program Committee Member
09/2007	2007 GameOn North America Conference	Technical Program Committee Member
08/2007	Sandbox: An ACM SIGGRAPH Video Game Symposium	Reviewer
12/2006	CyberGames 2006: International Conference and Exhibition on Games Research and Development 2006 GameOn Conference	Technical Program Committee Member
11/2006		Technical Program Committee Member
10/2006	NetGames 2006	Technical Program Committee Member
10/2006	2006 Future Play Conference ⁷	Host, Co-Chair, and Program Committee
		Chair
09/2006	Games 2006: International Digital Games Conference	Technical Program Committee Member
09/2006	Canadian Game Studies Association 2006 Symposium	Technical Program Committee Member
09/2006	2006 GameOn North America Conference	Technical Program
07/2006	Sandbox: An ACM SIGGRAPH Video Game Symposium	Committee Member Technical Program
02/2006	Entertainment Systems 2006, Track at the International	Committee Member Technical Program
11/2005	Conference on Internet and Web Applications and Services The Third Annual International Conference in Computer Game	Committee Member Technical Program Committee Member
11/2005	Design and Technology 2005 GameOn Conference	Committee Member Technical Program Committee Member
10/2005	2005 Future Play Conference	Co-Chair
07/2005	2005 GameOn North America Conference	Technical Program Committee Member
01/2005	2005 Digital Games Research Association Conference	Review Board
06/2004	2004 IBM Centre for Advanced Studies Conference (CASCON)	Member Technical Program
		Committee Member
04/2004	2004 Workshop on End-to-End Service Differentiation (In	Technical Program
	conjunction with the IEEE International Performance Computing and Communications Conference)	Committee Member
04/2003	2003 Workshop on End-to-End Service Differentiation (In conjunction with the IEEE International Performance	Technical Program Committee Member
	Computing and Communications Conference)	
d) Journal Edit	torial Boards	
Date	Journal	Role
2007-Present 2006-Present	International Journal on Computer Games Technology LoadingThe Journal of the Canadian Game Studies Association	Associate Editor Editorial Board Member

⁷ The 2006 Future Play Conference was hosted by the University of Western Ontario at the London Convention Centre in London, Ontario. Michael Katchabaw organized and spearheaded this initiative at Western.

e) Program/Organizational Reviews

Date	Institution	Role
2020	Conestoga College (Bachelor of Digital Technology Solutions)	Reviewer
2012	The University of Prince Edward Island (Post-baccalaureate Certificate in Video Game Programming)	Reviewer
2008	Fanshawe College (Post-diploma Program in Computer	Advisor
	Programming for Game Development)	

f) Miscellaneous Refereeing, Reviewing, and Judging

Date	Venue	Role
04/2008 11/2007 11/2007	IEEE Transactions on Knowledge and Data Engineering IEEE Transactions on Knowledge and Data Engineering Journal of Supercomputing	Reviewer Reviewer Referee
11/2007 01/2007	International Journal on Computer Games Technology Multimedia Systems Journal	Reviewer Reviewer
12/2006	ACM Crossroads Magazine	Reviewer
11/2006	Special Issue on Game Programming for the Journal Science of Computer Programming	Reviewer
05/2006	Special Issue on Game Programming for the Journal Science of Computer Programming	Reviewer
05/2006	ACM Crossroads Magazine	Reviewer
03/2006	UWO Research in Computer Science Workshop	Judge
11/2005	Thomson Course Technology textbook manuscripts	Reviewer
05/2005	Journal of Supercomputing	Referee
04/2005	Western Research Forum	Judge
03/2005	UWO Research in Computer Science Workshop	Judge Referee
02/2005 09/2004	Journal of Software Practice and Experience ICC 2005 Communications QoS, Reliability and Performance	Referee
09/2004	Modeling	Kelelee
03/2004	UWO Research in Computer Science Workshop	Judge
08/2003	Journal of Computer Communications	Reviewer
11/2001	2001 IBM Centre for Advanced Studies Conference	Referee
11/2000	2000 IBM Centre for Advanced Studies Conference	Referee
11/1999	1999 IBM Centre for Advanced Studies Conference	Referee
09/1999	Q. Mahmoud. Distributed Programming with Java. Reviewed for and published by Manning Publications Co., 1999. (Several other books and proposals have been reviewed for Manning Publications Co. that did not make it to press.)	Reviewer
11/1998	1998 IBM Centre for Advanced Studies Conference	Referee
08/1998	Thirty-second Annual Hawaii International Conference on System Sciences (HICSS-32), Cluster Computing Minitrack	Referee
04/1998 08/1997	Third International Workshop on Systems Management Thirty-first Annual Hawaii International Conference on System Sciences (HICSS-31), Performance Evaluation of Distributed Systems Minitrack	Referee Referee
06/1996	Second International Workshop on Systems Management	Referee

g) Professional Memberships

- IEEE (Institute of Electrical and Electronics Engineers)
- ACM (Association for Computing Machinery)
- IGDA (International Game Developers Association)
- CGSA (Canadian Game Studies Association), Founding Member, Former Board of Directors and VP

9. **TEACHING**:

a) Undergraduate Courses Taught:

Dates	Course	Description	Evaluation Summary
2021-2022	CS 3307	Object-Oriented Design and Analysis	(Not available)
2021-2022	CS 3357	Computer Networks I	(Not available)
2021-2022	CS 4480	Game Development Project ⁸	(Not available)
2021-2022	CS 4483	Game Design	(Not available)
		(Cross listed as CS 9541)	
2020-2021	CS 3307	Object-Oriented Design and Analysis	(Not available)
2020-2021	CS 3357	Computer Networks I	(Not available)
2020-2021	CS 4480	Game Development Project ⁹	(Not available)
2020-2021	CS 4483	Game Design	(Not available)
		(Cross listed as CS 9541)	
2019-2020	CS 2212	Introduction to Software Engineering	(Overall 5.6/7.0)
2019-2020	CS 3307	Object-Oriented Design and Analysis	(Overall 5.9/7.0)
2019-2020	CS 4480	Game Development Project ¹⁰	(Not available)
2019-2020	CS 4483	Game Design	(Not available)
		(Cross listed as CS 9541)	
2018-2019	CS 3307	Object-Oriented Design and Analysis	(Overall 6.0/7.0)
2018-2019	CS 4480	Game Development Project ¹¹	(Not available)
2018-2019	CS 4483	Game Design	(Overall 6.6/7.0)
		(Cross listed as CS 9541)	(
2017-2018	CS 3307	Object-Oriented Design and Analysis	(Overall 5.6/7.0)
2017-2018	CS 4436	Game Audio Development	(Overall 6.6/7.0)
		(Cross listed as Music 3863, Co-taught with	
0047 0040	00.4400	Leslie Linton of Music)	/NI / " !! ! N
2017-2018	CS 4480	Game Development Project ¹²	(Not available)
2017-2018	CS 4483	Game Design	(Overall 6.4/7.0)
0045 0040	00.4400	(Cross listed as CS 9541)	/NI / " !! ! N
2015-2016	CS 4460	Bioinformatics Thesis ¹³	(Not available)
2015-2016	CS 4470	Software Maintenance and Configuration	(Not available)
0045 0040	00 4475	Management ¹⁴	(NI - (11 - 1-1 -)
2015-2016	CS 4475	Open Source Software Project ¹⁵	(Not available)
2015-2016	CS 4478	Master the Mainframe ¹⁶	(Not available)
2015-2016	CS 4480	Game Development Project	(Not available)
2015-2016	CS 4490	Thesis ¹⁷	(Not available)

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⁸ This full-year course was taken on as a further course overload in the 2019-2020 academic year, in excess of the normal teaching workload.

⁹ This full-year course was taken on as a further course overload in the 2019-2020 academic year, in excess of the normal teaching workload.

¹⁰ This full-year course was taken on as a further course overload in the 2019-2020 academic year, in excess of the normal teaching workload.

¹¹ This full-year course was taken on as a further course overload in the 2018-2019 academic year, in excess of the normal teaching workload.

¹² This full-year course was taken on as a further course overload in the 2017-2018 academic year, in excess of the normal teaching workload.

¹³ This full-year course was taken on as a further course overload in the 2015-2016 academic year, in excess of the normal

teaching workload.

14 This full-year course was taken on as a further course overload in the 2015-2016 academic year, in excess of the normal

teaching workload.

15 This half-year course was taken on as a course overload in the 2015-2016 academic year, in excess of the normal teaching

workload. It was offered in both terms.

¹⁶ This half-year course was taken on as a further course overload in the 2015-2016 academic year, in excess of the normal teaching workload.

¹⁷ This full-year course was taken on as a further course overload in the 2015-2016 academic year, in excess of the normal

2015-2016	CS 4483	Game Design	(Overall 6.7/7.0)
0044.0045	00.4404	(Cross listed as CS 9541)	(A) (!! ! !)
2014-2015	CS 4434	Master the Mainframe ¹⁸	(Not available)
2014-2015	CS 4460	Bioinformatics Thesis ¹⁹	(Not available)
2014-2015	CS 4470	Software Maintenance and Configuration Management ²⁰	(Not available)
2014-2015	CS 4475	Open Source Software Project ²¹	(Not available)
2014-2015	CS 4480	Game Development Project	(Not available)
2014-2015	CS 4490	Thesis ²²	(Not available)
2014-2015	CS 4483	Game Design	(Overall 6.8/7.0)
		(Cross listed as CS 9541)	,
2013-2014	CS 4460	Bioinformatics Thesis ²³	(Not available)
2013-2014	CS 4470	Software Maintenance and Configuration	(Not available)
0040 0044	00 4475	Management ²⁴	(A.L. (
2013-2014	CS 4475	Open Source Software Project ²⁵	(Not available)
2013-2014	CS 4480	Game Development Project	(Not available)
2013-2014	CS 4490	Thesis ²⁶	(Not available)
2013-2014	CS 4483	Game Design	(Overall 6.7/7.0)
		(Cross listed as CS 9541)	
2012-2013	CS 4438	Open Source Software Project ²⁷	(Not available)
2012-2013	CS 4470	Software Maintenance and Configuration Management ²⁸	(Overall 6.4/7.0)
2012-2013	CS 4480	Game Development Project	(Overall 7.0/7.0)
2012-2013	CS 4483	Game Design	(Overall 6.5/7.0)
		(Cross listed as CS 9541)	(
2011-2012	CS 4470	Software Maintenance and Configuration Management ²⁹	(Overall 7.0/7.0)
2011-2012	CS 4480	Game Development Project	(Overall 7.0/7.0)
2011-2012	CS 4483	Game Design	(Overall 6.6/7.0)
		(Cross listed as CS 9541)	
2010-2011	CS 4480	Game Development Project	(Overall 6.7/7.0)
2010-2011	CS 4483	Game Design (Cross listed as CS 9541)	(Overall 6.8/7.0)
2009-2010	CS 4480	Game Development Project	(Not available)
			,

teaching workload.

¹⁸ This half-year course was taken on as a further course overload in the 2014-2015 academic year, in excess of the normal teaching workload.

¹⁹ This full-year course was taken on as a further course overload in the 2014-2015 academic year, in excess of the normal teaching workload.

²⁰ This full-year course was taken on as a further course overload in the 2014-2015 academic year, in excess of the normal teaching workload.

²¹ This half-year course was taken on as a course overload in the 2014-2015 academic year, in excess of the normal teaching workload. It was offered in both terms.

²² This full-year course was taken on as a further course overload in the 2014-2015 academic year, in excess of the normal teaching workload.

²³ This full-year course was taken on as a further course overload in the 2013-2014 academic year, in excess of the normal teaching workload.

²⁴ This full-year course was taken on as a further course overload in the 2013-2014 academic year, in excess of the normal teaching workload.

²⁵ This half-year course was taken on as a course overload in the 2013-2014 academic year, in excess of the normal teaching workload. It was offered in both terms.

²⁶ This full-year course was taken on as a further course overload in the 2013-2014 academic year, in excess of the normal teaching workload.

²⁷ This half-year course was taken on as a course overload in the 2012-2013 academic year, in excess of the normal teaching workload.

²⁸ This full-year course was taken on as a further course overload in the 2012-2013 academic year, in excess of the normal teaching workload.

²⁹ This full-year course was taken on as a course overload in the 2011-2012 academic year, in excess of the normal teaching workload.

2009-2010	CS 4483	Game Design (Cross listed as CS 9541)	(Overall 6.3/7.0)
2008-2009	N/A	On Sabbatical	
2007-2008	CS 483	Game Design	(Overall 6.4/7.0)
		(Cross listed as CS 641)	,
2007-2008	CS 480	Game Development Project	(Not available)
2007-2008	CS 470	Software Maintenance and Configuration Management	(Not available)
2007-2008	CS 457	Computer Networks II	(Overall 6.8/7.0)
		(Cross listed as CS 546)	
2006-2007	CS 483	Game Design	(Overall 6.7/7.0)
		(Cross listed as CS 641)	
2006-2007	CS 480	Game Development Project ³⁰	(Not available)
2006-2007	CS 457	Computer Networks II	(Overall 6.5/7.0)
		(Cross listed as CS 546)	(aa (= a)
2006-2007	CS 026	Computer Science Fundamentals I	(Overall 6.0/7.0)
2005-2006	CS 437	Video Game Design and Implementation (Cross listed as CS 641)	(Overall 6.0/7.0)
2005-2006	CS 457	Computer Networks II	(Overall 6.0/7.0)
		(Cross listed as CS 546)	
2005-2006	CS 026	Computer Science Fundamentals I	(Overall 5.9/7.0)
2004-2005	CS 437	Video Game Design and Implementation	(Overall 6.7/7.0)
		(Cross listed as CS 641)	
2004-2005	CS 357	Computer Networks I	(Overall 6.4/7.0)
2004-2005	CS 457	Computer Networks II	(Overall 6.4/7.0)
		(Cross listed as CS 546)	(aa (= a)
2003-2004	CS 437	Video Game Design and Implementation	(Overall 6.4/7.0)
0000 0004	00.055	(Cross listed as CS 641)	(0
2003-2004	CS 357	Computer Networks I	(Overall 6.1/7.0)
2003-2004	CS 457	Computer Networks II	(Overall 6.2/7.0)
		(Cross listed as CS 546)	(a
2002-2003	CS 357	Computer Networks I	(Overall 6.1/7.0)
2001-2002	CS 211	Software Tools and Systems Programming	(Overall 6.0/7.0)
1997-1997	CS 402	Parallel and Distributed Systems	(Overall 6.2/7.0)
1996-1997	CS 402	Parallel and Distributed Systems	(Overall 6.6/7.0)

b) Undergraduate Supervision:

CS470/4470 (Software Maintenance and Configuration Management, group project):

Dates	Name(s)	Title of Project
2021-2022	M. Mcgavin, T. St. Onge, O. Kovtonyuk, S. Ahmadi	Western Tech Hub: Blockchain Ledgers
2021-2022	A. Srikantharajah, C. Railton, C. Owen, Z. Shah	Western Tech Hub: Mobile Development
2018-2019	M. Dueck, A. Lac, V. Lam P. Valovcik, J. Grant	A Storytelling Engine in Unity: Resurrecting the Reusable Scripting Engine
2017-2018	C. Welch	Game Decision Trees
2017-2018	A. Czerwinsky, W. Lee	Exploratory Tools for Data Science
2017-2018	F. Campos, T. Etchells, L. Kember, A. Ouy	Toccatina
2015-2016	Entire CS4470 class	Course Syllabus Tool for Registrar's Office and the Teaching Support Centre (Instructor for the course)

This full-year course was taken on as a course overload in the 2006-2007 academic year, in excess of the normal teaching workload.

2014-2015	Entire CS4470 class	Schulich Acuity STAR Development
2013-2014	Entire CS4470 class	(Instructor for the course) Western Mobile App Development
2012-2013	Entire CS4470 class	(Instructor for the course) Western Mobile App Development (Instructor for the course)
2011-2012	Entire CS4470 class	Western Mobile App Development (Instructor for the course)
2007-2008	Entire CS470 class	Continued Porting to XNA Game Studio Express (Instructor for the course)
2006-2007	Entire CS470 class	Porting to XNA Game Studio Express (Consultant for project)
2005-2006	D. Lang, S. Shen, Y Wang, M. Weston	Benchmarking of Mobile and Wireless Computing Devices
2005-2006	C. Dance, J. Gamble, J. Little, E. Shani (Co-supervised with Hanan Lutfiyya, Computer Science)	CV Management in XML
2005-2006	R. Arab, D. Gunaratne, L. Melville, Y. Park (Co-supervised with Hanan Lutfiyya, Computer Science)	Extensions to GADS
2004-2005	W. Hergott, R. Jaeger, S. Landicho, M. Pham, C. Young	Interfacing and Virtualization in an Unreal Based Video Game
2004-2005	A. Al-Kaabi, P. Gkourasas, P. Michailidis, M. Salih, Z. Vujcic	Artificial Intelligence for an Unreal Based Video Game
2004-2005	C. Groleau, E. Kerfoot, K. Mark, K. Meyer, J. Wong	Player Support in an Unreal Based Video Game
2004-2005	C. Lin, M. Mai, P. Nguyen, A. Saleh (Co-supervised with Michael Bauer, Computer Science)	Implementation of Advanced Caching Algorithms in Web Proxy Servers
2002-2003	W. Siddiqui, H. Hamshari, A. Shah	Java Application Instrumentation
2002-2003	S. Contoni, N. Marrin, H. Kaminski	Quake Based Systems and Network Management: Level Design
2002-2003		, Quake Based Systems and Network Management: Distribution Elements
2002-2003	A. Schmelzle, M. Bernat, M. Hrycyshyn, T. Mullen, T.Spicer	Telerobotics for the Internet

CS480/4480 (Game Development Project, group project):

,	, , ,	, , ,
Dates	Name(s)	Title of Project
2021-2022	E. Biswurm, C. Fang, O. Hebert, W. Sun	Augmented Good Competition: The Deforest City
2021-2022	C. McCarthy, M. Stewart, C. Stoddart, X. Zhang	Earth Sciences Field Studies
2021-2022	F. Bushra, S. Godbout, R. Harlen, T. Lu	Environmental Assessment Training
2021-2022	L. Abbas, K. Gao	Marine Biology Field Trip

2021-2022	J. Maxwell, D. Wakefield W. Chen, B. Howe, A. Rizvi,	Waste Sorting Challenge
2020-2021	M. Sahlol, M. Schmittat S. Aspinall, R. Davis,	Blink
2020-2021	N. Kolovos, M. Murad H. Abdel Jabbar, R. Ahmed, C. Finnie, Q. Fisher, S. Gunderson	Lucid(ity)
2019-2020	Chao Chao, Qi Liu, Wayne Maysuik, Connor Mccaffrey, Pedro David Ortega Santos	Powerglide
2019-2020	Ryan Clements, Heather Kozak Robert O'Neill, Wes Ong, Zhaohe Zhang	Trivia Quest
2018-2019	Justin Koh, Dennis Ljeti, Michael Park, Andy Pham	Wizrads
2017-2018	Evan Finnigan, Duff Jones, Jameel Kaba, Konrad Pfundner	Stack Attack
2015-2016	Jason Brasse, Even Debenham, Jamie Finnigan, Jeff Godisart, Bradley Hamelin	Oculus Archery
2013-2014	Jeremy Kooper, William Roy, Matt Kirk, Jeremy Winters	Triangular
2013-2014	Brian Dinelt, Jake Stephens, Francisco Josino Junior, Thais Correia	Hyper Deathball
2012-2013	Timothee Aufort, Michael Cookson, Benjamin Dunkin, Caroline Rose, Hamed Saadat	Megathon
2011-2012	Nelson Andre, Spencer Baynton, Matthew Green, Brandon Kerr, Nicholas Schudlo	Blub
2010-2011	Nick DiZazzo, Kevin Fielding, James Leslie, Stephen Mashalidis	Polygon Siege
2010-2011	Stephan Beltran, Rachel Grimard, Alex Harper, Nicolas Perreault, Ryan Ferguson	Intruder's Run
2010-2011	Mark Wynen, Tyler Childerhose, Matthew Sitko, Chris Galloway	Snow Slalom
2009-2010	R. Sugar, M. Sitko, D. Vince, T. Zablocki, Z. Niu, and G. Troupel	Bomb Squad
2007-2008	H.Wu, J. You, and D. Koschman	The Continuing Misadventures of State Man
2006-2007	J. Grundy, C. Pickering, and M. Hodgson (Co-supervised with Mark Daley, Computer Science)	Scorched Planets

SE4450 (Project/Thesis for Software Engineering, individual or with small group):

Dates	Name(s)	Title of Project/Thesis
2020-2021	E. Ng, K. Zhu, W. Henning	Contagion Simulator
	X. Dong	· ·
2015-2016	Matthew Laing et al	Adrift
2014-2015	Omar Farchoukh,	Cavern
	Keegan Grimminck,	
	Scott King	
2013-2014	Jeffrey Genovy	Porting SimCity
2013-2014	Xander Ward,	Inferno Meadow
	Matthew Meinen	

CS380/490/3380/4490 (Project/Thesis, individual or with small group):

Dates	Name(s)	Title of Project/Thesis
2021-2022 2021-2022 2021-2022 2021-2022	A. Arimah F. Bushra C. Chang H. Dodd	Indigenous Experiences in VR Dynamic Storytelling System Integrating Believable AI into the Unreal Engine Leveraging GANs in Automated Music Composition
2021-2022 2021-2022	P. Gui H. Liu	An Exploration of Behaviour Trees Understanding Player Purchase Habits and Indications
2021-2022 2021-2022 2021-2022 2021-2022	T. Lu J. Patel J. Torrealba J. Undhad	An Exploration of Stealth Mechanics in Games Adaptive Game Difficulty in Unity Believable AI in Unity Sentiment Analysis of Video Game Reviews and Social Media
2021-2022 2021-2022 2021-2022 2020-2021	C. Wang R. Wu T. Wu F. Smith	Indigenous Experiences in VR Towards More Humanlike AI in FPS Bots Virtual Assistants in Video Games Artificial Societies for Procedurally Generated
2020-2021 2020-2021 2020-2021 2020-2021 2020-2021	A. Lee R. Na A. Alasmar J. Parlakyigit B. Lui	Game Worlds Bringing New HOPE to Unity Developers Adaptive Difficulty Adjustment in Unity Choice-Based Storytelling Engine Exploring Game Analytics Synchronous Video Technologies for Lonely Older Adults: Providing Technical Support
2020-2021	H. Hsiao	Synchronous Video Technologies for Lonely Older Adults: How to Best Use or Alter Existing Technologies to Serve the Social Needs of Older Adults
2020-2021 2019-2020 2019-2020	T. Lee Shawn Moffatt Morgan O'Brien	Optimizing Water Simulations for Games Flexible Music Composition Engine A System for Flexible Emotions in Algorithmic Music Composition
2019-2020 2018-2019 2018-2019	Yanzhou Yang Joel Kennedy John Abed	Nonlinear Storytelling Engine in Unity Visual Analytics Through Grafana Plugins Optimization of Game Economies in a Premium Model
2018-2019	Aiden Miller	Optimization of Free-to-Play Video Game Economies
2018-2019	Hussein Fahmy	Triaging Patients to Appropriate Healthcare Resources using a Validated Symptom Checker – Backend
2018-2019	Brandon Kong	Symptom Checker

2018-2019	Zenen Treadwell	Triaging Patients to Appropriate Healthcare Resources using a Validated Symptom
2018-2019	Sama Rahimian	Checker Frontend Development for Triaging Patients to
		Appropriate Healthcare Resources using a Validated Symptom Checker
2018	Katherine Zambrano	Toccatina
2017-2018	Carter Boon	Predicting Player Churn Rate
2017-2018	Kuldip Chakrabarty	Applying Machine Learning to LTV Optimization
2017-2018	Matthew Dudycz	Funnel Analyses
2017-2018	Haitian Yu	Game Economy Optimization
2017-2018	Remmy Kilonzo	Predicting Player Churn in Video Games
2017-2018	Jisoo Lee	Evaluating deltaDNA for Classroom Use
2017-2018	Tian Yi Li	Unified Cloud Storage for Toccatina
2017-2018	Leroi Yu	Examining the Use of Behaviour Segmentation
0047 0040	5	to Predict Player LTV in Video Games
2017-2018	David Newell	Spatial Visualization of Sound Sources Using
	(Co-supervised with	Beamforming and an RGB-D Sensor for Robust
	Leslie Linton, Music)	Video Depth Mapping of Both Static and
		Dynamic Scenes
2017-2018	Peter Pfoertsch	Achieving Speciation with Evolutionary Learning
		in Complex Modern Video Game Environments
2017-2018	Anoop Toor	Bot and Cheat Detection in First Person Shooter
		Games
2017-2018	Yuhan Zhang	Al and Storytelling for Games
2016-2017	Zhan Han	Social Network Analytics on Games
2016-2017	Alexander Maclean	Integrating Cloud Services into Toccatina
2016-2017	Kun Xie	Analytics of Application Anomalies and Anomaly Detection
Summer 2016	B. Hammelin	Blockly My Singing Monsters Composition Tool
2015-2016	Duff Jones	Believable Agents in Minecraft
2015-2016	Andrew Stebel	Vehicle Simulations in Unity and SUMO
Summer 2015	Delerina Hill	Impact Junk – Web Backend
Summer 2015	Carolina Osorno Valderrama	Impact Junk – Android Frontend
Summer 2015	Andrew Stebel	Unity Levels for Myo Interactables
Summer 2015	Anoop Toor	Myo Mouse Interfacing in Unity
2014-2015	Yaqzhan Ali	Adding Believable Characters to Minecraft
2014-2015	Justin Doyle	Streaming Music for Exploration
2014-2015	Connor Graham	Motion Tracking for RSI Therapy
2014-2015	Joe Lin	Gesture Tracking for Juggling Simulation
2014-2015	Bryan Muscedere	Hand Tracking for Assessing Surgical Skill
2014-2015	Siamak Soltani	Database Schema Discovery and Web Service
		Interface Development
Summer 2014	Justin Doyle	Exploring Music Through Mobile Apps
Summer 2014	Alexander Maclean	Streaming Services for Interacting with Musical
		Performances
2013-2014	Randall Ho	Developing a Sign Language Interface Using Wearable Technologies
2013-2014	Mark Oberemk	Narrative Structure Generation for Games
2013-2014	Christopher Yiu	Diagnosis and Therapy of Wrist and Hand Pains
2013-2014	Christopher Tid	Using Motion-Sensing Technologies
Summer 2013	Jonathan Demelo	Extending Syllabi Support in OWL/Sakai
Summer 2013	Jeff Godisart	Evaluating Generated Story Elements
Summer 2013	Ming Ying Shan	Web Based Tools for CV/Resume Management
2012-2013	Tyler Childerhose	Using Augmented Reality to Treat Neuropathic
2012 2012	Eric Knull (Co supervised with	Pain Symptoms Hand Segmentation and Gesture Recognition
2012-2013	Eric Knull (Co-supervised with	Hand Segmentation and Gesture Recognition
2012-2013	Aaron Fenster, Robarts)	System for Use in Operating Theatre
2012-2013	Ramesh Raj (Co-supervised	Simulating The Motorola HC12 Microprocessor

2011-2012	with Ken McIsaac, Engineering Andrew Kope) for Teaching and Learning Psychological Foundations of Characters in Video Games
2011-2012 2011-2012	Nelson Andre Jordan Van Dyk (Co-supervised with	Visual Simulation of Cells Security of Wireless Protocols
Summer 2011	Mark Bramwell) Hing Chan (Co-supervised with James McInnes, Cyborg	Visualization of High Fidelity Financial Data
2010-2011	Trading Systems) E. Guillemette	Tools and Techniques for Modern Software Project Management
2010-2011	J. Simpson	Virtual Reality in Medical Applications
2010-2011	K. Gao	Nonlinear Storytelling Engine
2010-2011	L. Xu (Co-supervised with	Visualization of High Frequency Trading
	James McInnes, Cyborg	
2010-2011	Trading Systems) W. Sun (Co-supervised with James McInnes, Cyborg	Visualization of High Frequency Trading
2009-2010	Trading Systems) B. Cruise	Advanced Topics in Automated Music
2003-2010	D. Ordisc	Composition
2009-2010	E. Cormie-Bowens	Automated Dialogue Generation Using Personality and Emotion
2009-2010	G. Kapp	Augmented Reality for Medical Applications: Sensor Controls
2009-2010	V. Vujcic	Augmented Reality for Medical Applications: Immersive Environments
2009-2010	R. Maloney	Dungeon Mastering Tools for RPGs
2009-2010	C. Whippey	Culture in Game Design
2009-2010	R. Sugar	Unreal-Based Environment for Emergent AI: AI Construction
2009-2010	T. Zablocki	Unreal-Based Environment for Emergent AI: Scenario Construction
2008-2009	M. Grasby	Computer-Driven Traffic Simulations
2008-2009	B. Sinnamon	Advanced Storytelling Engines for Video Games
2007-2008	V. Bonduro	Automated Storytelling Engine for Video Games
2007-2008	R. Haworth	Enhancing a Synthetic Player for an Online RPG
2007-2008	C. Simpson	Using Emergent Gameplay and Evolutionary Graph Theory to Model Reputation and Gossip with Al Controlled Players in a Computationally
2007 2009	N. Stradeski	Inexpensive Way
2007-2008 2006-2007	M. Feeney	J2ME Universal Bluetooth Learning Remote Modeling Group Dynamic Behaviour and
2000-2007	IVI. Feeliey	Flocking in Congested Situations
2006-2007	A. Rankin	Formalization of Reverse Engineering Techniques
2006-2007	S. Phillips (Co-supervised with Hanan Lutfiyya, Computer Science)	Locater: An Indoor Positioning System
Summer 2006	M. McLaughlin	Reusable Storytelling Engines
2005-2006	S. Burgess	Patterns in Optimism for Masking Network
	•	Latency in Modern Video Games
2005-2006	C. Chan and X. Zhang	Benchmarking Wireless Devices in J2ME
2005-2006	W. Mastej (Co-supervised	Implementation of a Web Accessible X-Ray
	with Michael Jennings,	Database
2005-2006	Chemistry) D. Pass	Automating CV Content Extraction to XML
2000-2000	D. F 033	Automating GV Content Extraction to Aivie

2004-2005	C. Bailey	Managing Player Frustration and Enjoyment in Video Games
2004-2005	C. Barber	Realistic Unscripted Dialog in Video Games
2004-2005	N. Boniferro	Adaptive Artificial Intelligence for Video Games
2004-2005	R. Demopoulos	Evolution of Algorithmically Generated Music
	•	on J2ME Mobile Devices
2004-2005	C. Eckhert	A Cluster-Based Web Workload Generator
2004-2005	L. Gruenwoldt	Relationship Management and Response in
		Video Games
2004-2005	R. Hannna	Bringing New HOPE to Networked Video Games
2004-2005	W. Hao (Co-supervised	Implementation of a Web Accessible X-Ray
	with Michael Jennings,	Database
	Chemistry)	
2004-2005	S. Karac (Co-supervised	Implementation of a Web Accessible X-Ray
	with Michael Jennings,	Database
	Chemistry)	
2004-2005	K. Muma	Dynamic Quest and Event Generation for
		Adventure Games
Summer 2004	D. Craven	Instructional Support and Benchmarking for
		Mobile Devices
2003-2004	B. Bailey	The Use of Mobile Computing Devices in
	,	Road Construction
2003-2004	A Culver	A Free Resource Locator for
		Pervasive Computing
2003-2004	E. Ireland	Development and Evaluation of Computer
		Camp Curriculum
2003-2004	A. German	Efficient Streaming of Stereo Video Data
		ŭ
2003-2004	N. Hoffman	The Development of an Improved Mail
		Agent for Mobile Devices
2003-2004	A. Van Arden	A Realistic Physics Engine for Low
		Power Gaming Devices
2003-2004	R. Sethi	An Automated Direction Provider
		Using Wireless Internet
2003-2004	H. Tran	An Experimental Evaluation of Multimedia
		Mobile Phones
2003-2004	S. Wang	A Performance Evaluation of Multimedia
		Mobile Phones and Gaming Devices
2002-2003	N. Brittain	Quake Based Systems and Network
		Management: Visualization Elements
2002-2003	H. Chen, N. Curtis	Quake Based Systems and Network
		Management: Management Interface
2002-2003	C. O'Donell	HP PARISC 64-Bit GNU Libc Port
1996-1997	E. Wright (Co-supervised	Video on a High Speed Network
	with Hanan Lutfiyya, Computer	
	Science)	
1996-1997	S. Hayden, J. Grundy	Video-on-Demand
1996-1997	C. McNiven, J. Posavad	Secure Distributed Java Gambling
	(Co-supervised with	
	Hanan Lutfiyya, Computer	
	Science)	

Other (Summer NSERC award, work study, Scholars Electives, Science Without Borders, and so on):

Dates	Name(s)	Title of Project
2021-2022	Z. Adnan	Achieving Tech-Related Learning Outcomes

		Through New Business Case Study
0000 0004	N. Observ	Methodologies
2020-2021	N. Shen	Using Machine Learning to Optimize Public Transit Scheduling and Efficiency
2019-2020	J. Hu	Al Approaches to Dynamic Game Difficulty
2019-2020	S. Zhang	Comparing Al Learning Methods for Optimal
	-	Success in Games
2017-2018	D. Jones	Toccatina
2017-2018	K. Zambrano	Toccatina
2016-2017	D. Jones	Toccatina
2016-2017	K. Zambrano	Toccatina
Summer 2016		Sensors for Grain Storage and Measurement
2015-2016	J. Paiva Jorge de Souza M. Mulk	Deployment and Configuration of OpenEMR Storytelling Extensions to Minecraft
Summer 2015	G. Oliveira	Artificial Society Generation
Summer 2015		Believable Agents in Minecraft
Summer 2015	* · =·····	Believable Agents in Minecraft
Summer 2014		Integration of Psychosocial Models into a
		Commercial Video Game System
Summer 2014	F. Josino Jr.	Integration of Psychosocial Models into a
		Commercial Video Game System
Summer 2014	J. de Queiroz Jr.	Integration of Psychosocial Models into a
0 0044		Commercial Video Game System
Summer 2014	M. Kuang	Using Accelerometer Sensor Data in the Study
Cummor 2012	I. Aguino	and Assessment of Neck Pain
Summer 2013 Summer 2013	J. Aquino J. Targino	Memory Seeding in Al Agents Memory Seeding in Al Agents
	C. Rose	Associative Memory for Emergent Al Agents
	C. Rose	Associative Memory for Emergent Al Agents
2011-2012	D. Gauthier	Algorithmic Music Evolution Engine
Summer 2011		Algorithmic Music Evolution Engine
2010-2011	M. Kirk	Departmental Web Development
2010-2011	N. Perreault	Unreal-Based Environment for Emergent Al:
		Scripting Support
2010-2011	R. Grimard	Unreal-Based Environment for Emergent Al:
0040 0044		Al Construction
2010-2011	N. DiZazzo	AMEE Pop Tones
Summer 2010	T. Zablocki	Unreal-Based Environment for Emergent AI:
Guilline 2010	1. Zubiodki	Scenario Construction
Summer 2010	R. Grimard	Unreal-Based Environment for Emergent AI:
		Al Construction
2009-2010	J. Shantz	Algorithmic Music Evolution Engine
2009-2010	C. Eineke	Algorithmic Music Evolution Engine
2008-2009	M. Kishimoto	Algorithmic Music Evolution Engine
2008-2009	S. Huerter	Algorithmic Music Evolution Engine
2008-2009	M. Brennan	Algorithmic Music Evolution Engine
2007-2008	T. Bullen	Evolving Enhanced Bots Using Genetic
Summer 2007	T. Bullen	Algorithms Automating Content Analysis of Video Games
Summer 2007	A. Chan	Development and Porting of XNA Smashocosm
2006-2007	T. Bullen	Automating Content Analysis of Video Games
Summer 2006	T. Bullen	Automating Content Analysis of Video Games
Summer 2006	S. Phillips (Co-supervised with	WiFi Based Location Detection and Tracking
	Hanan Lutfiyya, Computer	
	Science)	
Summer 2005	C. Bailey	Grid Computing Services for MMO Games
Summer 2003	S. Wang	Quake Based Systems and Network
		Management: Integration Issues

c) Graduate Courses Taught:

Dates	Course	Description	Evaluation Summary
2021-2022	Phil 9232	Ethical and Societal Implications of Al (Co-taught with M. Barnes of Philosophy)	(Not available)
2021-2022	CS 9541	Game Design (Cross listed as CS 4483)	(Not available)
2020-2021	Phil 9232	Ethical and Societal Implications of Al (Co-taught with Bartlomiej Chomanski of Philosophy)	(Not available)
2020-2021	CS 9541	Game Design (Cross listed as CS 4483)	(Not available)
2019-2020	Phil 9232	Ethical and Societal Implications of Al (Co-taught with Bartlomiej Chomanski of Philosophy)	(Not available)
2019-2020	CS 9541	Game Design (Cross listed as CS 4483)	(Not available)
2018-2019	Phil 9232	Ethical and Societal Implications of Al (Co-taught with Christopher Smeenk of Philosophy)	(Not available)
2018-2019	CS 9541	Game Design (Cross listed as CS 4483)	(Not available)
2017-2018	CS 9541	Game Design (Cross listed as CS 4483)	(Not available)
2015-2016	CS 9541	Game Design (Cross listed as CS 4483)	(Not available)
2014-2015	CS 9541	Game Design (Cross listed as CS 4483)	(Not available)
2013-2014	CS 9541	Game Design (Cross listed as CS 4483)	(Not available)
2012-2013	CS 9541	Game Design (Cross listed as CS 4483)	(Not available)
2011-2012	CS 9541	Game Design (Cross listed as CS 4483)	(Overall 7.0/7.0)
2010-2011	CS 9541	Game Design (Cross listed as CS 4483, and also taught at IBM as a CONGESE course)	(Not available)
2009-2010	CS 9541	Game Design (Cross listed as CS 4483)	(Not available)
2008-2009 2007-2008	N/A CS 641	On Sabbatical Game Design (Cross listed as CS 483)	(4.86/5)
2007-2008	CS 546	Computer Networks II (Cross listed as CS 457)	(4.76/5)
2006-2007	CS 641	Game Design (Cross listed as CS 483)	(Not available)
2006-2007	CS 546	Computer Networks II (Cross listed as CS 457)	(Not available)
2005-2006	CS 641	Video Game Design and Implementation (Cross listed as CS 437, and also taught at IBM as a CONGESE course)	(Overall 4.62/5) (Overall 4.75/5 for CONGESE version)
2005-2006	CS 546	Computer Networks II (Cross listed as CS 457)	(Overall 4.87/5)
2004-2005	CS 641	Video Game Design and Implementation (Cross listed as CS 437)	(4.85/5)
2004-2005	CS 546	Computer Networks II	(4.58/5)

		(Cross listed as CS 457)	
2003-2004	CS 641	Video Game Design and Implementation	(Overall 5/5)
		(Cross listed as CS 437)	,
2003-2004	CS 546	Computer Networks II	(Overall 5/5)
		(Cross listed as CS 457)	,
2002-2003	CS 641	Video Game Design and Implementation	(Overall 4.64/5)

d) Graduate Supervision:

Current Supervision of Thesis Students:

Name	Topic/Proposed Title of Thesis
E. Aissa (PhD) M. Babin (PhD) G. Kuznetsov (MSc) L. Milambiling (MSc) R. Segistan (MSc) B. Srivastava (PhD) J. Tan (PhD) C. Yiu (MSc)	Applying Machine Learning to Game Analytics Procedural Content Generation in Games Learning Believable Actions in Games Computational Linguistics and Games Believable AI in Games Grand Strategy Game Artificial Intelligence Machine Learning for Believable AI in Games Applying Time Series Analyses to Game Analytics

Current Supervision of Coursework Students:

Name	Topic/Proposed Title of Thesis
P. Madhur N. Thomas	Item Recommendation for Video Games Linking Game Performance Metrics to Social Artifacts

Y. Yang Improved AI Controllers for Unity

Graduated Thesis Students:

Year	Name	Title of Thesis/Project
2020 2019	M. Babin (MSc) J. Tan (MSc)	A Hybrid Approach to Procedural Generation Applicability of Recurrent Neural Networks to Player Data Analysis in Freemium Video Games
2015	B. Sarlo (MSc)	An Approach To Artificial Society Generation For Video Games
2015	C. Rose (MSc)	Realistic Dialogue Engine for Video Games
2014	M. Chowdhury (Phd)	A Software Design Pattern Based Approach to Auto Dynamic Difficulty in Video Games
2014	N. Schudlo (MSc)	Development of an Emergent Narrative Generation Architecture for Videogames
2013	N. Andre (MSc)	A Modular Approach to the Development of Interactive Augmented Reality Applications
2013	J. Forgette (MSc)	Reinforcement Learning with Motivations for Realistic Agents
2013	A. Dorgoly (MSc)	An Architecture for Believable Socially Aware Agents
2013	K. Wheeler (MSc)	Representing Game Dialogue as Expressions in First-Order Logic
2012	A. Garcia (MSc)	Interactive Augmented Reality as a Support Tool For Parkinson's Disease Rehabilitation Programs
2012	J. Fraser (MSc, Co-supervised	Game Challenge: A Factorial Analysis Approach

2009	with Robert Mercer, Computer Science G. Acton (MSc)	Playing The Role: An Action Selection Architecture For Believable Behaviour In Non Player Characters and Interactive Agents
2009	A. Rankin (MSc)	Scalability and Performance of Affective Multi-Agent Systems
2009	C. Whippey (MA, Co-supervised With Karl Hele, Anthropology)	When Actual Meets Virtual
2009	J. You (MSc)	Comprehensive Believable Non Player Characters Creation and Management Tools for Emergent Gameplay
2007	C. Bailey (MSc)	Towards Emergent Gameplay: A Framework for Realistic Psychosocial Behaviour in Non Player Characters
2007	R. Demopoulos (MSc)	Towards an Integrated Automatic Music Composition Framework
2006	D. Santoni (MSc)	Resource Matching in a Peer-to-Peer Computational Framework
2005	B. Huang (MSc, Co-supervised with Michael Bauer, Computer Science)	
2005	D. Martens (MSc)	Dynamic Disk Pattern Recognition for Optimal System Performance
2005	S. Norman (MSc, Co-supervised with Hanan Lutfiyya, Computer Science)	A Grid Application Deployment Service
2005	D. Reid (MSc)	A Stateless Architecture for Achieving Scalable Quality of Service

Graduated Coursework Students:

Year	Name	Title of Thesis/Project
2020 2020 2020	V. Kodiyala W. Zhang D. Sharma	A Study of Explainable AI Optimistic Networking Constructs in Unity Auto Dynamic Difficulty: Training AI Agents to Compete with the Player in a Karting Game Using Unity's ML-Agents Package
2019	B. Narang	Training an Agent to Play Third-Person Shooter Games Using Imitation Learning
2019	A. Santalov	Design and Development of Administrative Software Tool for Video Games and Digital Entertainment
2018	K. Xie (MSc)	Reactive AI in Games
2018	T. Zhu (MSc)	Video Game AI Design
2017	Z. Chen (MSc)	Time Series Analysis of DAU in R
2016	C. Brogly (MSc)	Sumo Sim Driving Simulator in Unity
2016	Q. Chen (MSc)	Believable Player-NPCs
2016	J. Xu (MSc)	Quest Design and Assignment in Games
2016	J. Sun (MSc)	Design Improvements to Musical Chairs
2015	M. Chen (MSc)	Evaluation of Mobile Gaming Experience with Different Interaction Designs
2015	Q. Qu (MSc)	Web Service Development for Acuity STAR

2015	W. Wei (MSc)	Improving Usability in Musical Chairs
2015	W. Xu (MSc)	Performance Optimization of Artificial Society
		Generation
2015	N. Zhang (MSc)	Alternative Multimedia Software for University Education
2012	B. Sousa (MSc)	An Evaluation of Network Aspects of Cloud
		Gaming and the Scenario in Canada
2007	W. Zhang (MSc)	Automating Storytelling in Video Games
2007	A. Raja (MSc)	An Automated Bot Client for a Client-Server
		Adventure Game
2007	S. Rajput (MSc)	Trust and Fairness in Peer-to-Peer Computing
2006		Terrain Rendering Using Weight Finite Automata
	with Mark Daley, Computer	
0005	Science)	IOME Developed the sea Malette Devices
2005	M. Bhatti (MSc)	J2ME Benchmarking on Mobile Devices
2005	S. Bhatti (MSc)	A Voice Chat Application using Bluetooth
2005	G. Shelley (MSc)	New Hope: Design Patterns for Optimism in
		Networked Games
2004	J Newton-Smith (MSc)	TileMap: A Pseudo-Random Tile-Based Method
		for Map Generation

Examination involvement:

Student	Title	Role
E. Simpson	Real-time Automated Performance Metrics for Virtual Temporal Bone Drilling (MEsc, November 2021)	Examiner
S. Chang	A Black-box Approach for Containerized Microservice Monitoring in Fog Computing (MSc., September 2021)	Examiner
W. Beldman	Predicting Stock Market Sector Sentiment Through News Article Based Textual Analysis (MSc., August 2021)	Examiner
H. Al-Tahan	Contrastive Learning of Auditory Representations (MSc., May 2021)	Chair
J. Yin	A Lightweight and Explainable Citation Recommendation System (MSc., April 2021)	Chair
R. AlFar	Physical Layer Framework for a Smart City Using Accumulative Bayesian Machine Learning (MSc., February 2021)	Examiner
L. Li	A Comparative Study on Artificial Intelligence Curricula (MA, Education December 2020)	Examiner
Y.Li	What to Say and How to Say It: the Interplay of Self-Disclosure Depth, Similarity, and Interpersonal Liking in Initial Social Interactions (PhD, Psychology, August 2020)	Examiner
S. Noorwali	Range Flow: New Algorithm Design and Quantitative and Qualitative Analysis (PhD, April 2020)	Examiner
I. Noorwali	A Requirements Measurement Program for Systems Engineering Projects: Metrics, Indicators, Models, and Tools for Internal Stakeholders (PhD, April 2020)	Examiner
M. Lukacs	The Rise of Virtual Reality in Physical Rehabilitation: A Historical Review and Critical Analysis. Where Do We Go From Here?	Comprehensive Exam Committee Member

M. Sun	(PhD, School of Physical Therapy, Dec. 2019) A Unified Monitoring Framework (MSc, April 2019)	Reader
M. Samee	Improving Neural Sequence Labelling Using Additional Linguistic Information (MSc, April 2019)	Chair
S. Datta	Optimization of Page Response Time Using Continuous Resource Publishing Technique (MSc, December 2018)	Examiner
M. Nixon	Investigating the Role of Social Eye Gaze in Designing Believable Virtual Characters (PhD – Simon Frasier University, December 2017)	External Examiner
R. Bhakta	Using Partial Root-Cause Analysis to Predict Field Defects (MSc, November 2017)	Examiner
A. Hamou	Basic Science to Clinical Research: Segmentation of Ultrasound and Modelling in Clinical Informatics (PhD, April 2017)	Examiner
S. Aleem	A Digital Game Maturity Model (DGMM) (PhD, July 2016)	Examiner
X. Zhou	IOT Stream Analytics Platform (MSc, July 2016)	Examiner
C. Huang	Virtual Reality Simulator for Training in Myringotomy with Tube Placement (PhD, April 2016)	Examiner
Y. Luo	Machine Learning of Lifestyle Data for Diabetes (PhD, April 2016)	Examiner
S. Carino	Dynamically Testing Graphical User Interfaces (PhD, January 2016)	Examiner
A. L'Heureux	Gamification Framework for Sensor Data Analytics (MEngSc, August 2015)	Examiner
B. de Vlugt	Modern Optimization Algorithms and Applications: Architectural Layout Generation and Parallel Linear Programming (MEngSc, August 2015)	Examiner
A. Samani	Privacy in Cooperative Distributed Systems: Modeling and Protection Framework (PhD, April 2015)	Examiner
M. Enns	Game Scoring: Towards a Broader Theory (MA, April 2015)	Examiner
R. Haworth	An Investigation of Cognitive Implications in the Design of Computer Games (PhD, February 2015)	Examiner
S. Pritom	Geography Aware Virtual Machine Migrations and Replications for Distributed Cloud Data Centres (MSc, January 2015)	Examiner
G. Maruf	Fast Non-Local Means Algorithm Based on Dimensionality Reduction (MSc, December 2014)	Examiner
G. Keller	Dynamic Resource Management in Virtualized Data Centres (PhD, November 2014)	Examiner
A. Khalaj	Proxy-based Mobile Computing Infrastructure (PhD, October 2014)	Examiner
M. Tighe	Advances in Dynamic Virtualized Cloud Management (PhD, September 2014)	Examiner
P. Egscheider	Development and Assessment of a Virtual Reality Forklift Simulator as a Research Tool to Study Whole-Body Vibration (MSc, August 2014)	Examiner

S. Ahmed	Application of Risk Metrics for Role Mining (PhD, August 2014)	Examiner
C. Gravelines	Deep Learning via Stacked Sparse Autoencoders for Automated Voxel-Wise Brain Parcellation Based on Functional Connectivity (MSc, April 2014)	Examiner
N. Cerilii	A Vector Based Approach to Virtual Machine Arrangement (MSc, March 2014)	Examiner
I. Milevskiy	Detecting Multilingual Lines of Text with Fusion Moves (MSc, December 2013)	Chair
O. Oyebode	Redesign of Johar: A Framework for Developing Accessible Applications (MSc, December 2013)	Examiner
O. Mola	Collaborative Policy-Based Autonomic Management in IaaS Clouds (PhD, September 2013)	Examiner
A. Tajalli-Yazdi	Policy-Based Immunization Framework for MANET (MSc, August 2013)	Examiner
B. Shirley	Interpretation, Stratification and Validation of Sequence Variants Affecting mRNA Splicing in Complete Human Genome Sequences (MSc, April 2013)	Chair
M. Adams	Press X to Kick the Bucket: Towards an Understanding of Player-Death in Video Games (MA, March 2013)	Field Study Examiner
G. Foster	UTIL-DSS: Utilization Based Dynamic Strategy Switching for Improvement in Data Centre Operation (MSc, March 2013)	Examiner
J. Sun	Automatic Classification of Epilepsy Lesions (MSc, December 2012)	Chair
M. Rahaman	Performance of Data Transmission for Mobile Applications (MSc, April 2012)	Examiner
H. Ghandorh	Mapping BPEL Processes to Diagnostic Models (MSc, December 2011)	Examiner
I. Rakhmatulin	A Framework for Analysis of Java-Based XACML Engines (MSc, December 2011)	Examiner
S. Carino	Creating Smart Test Cases from Brittle Recorded Tests (MSc, December 2011)	Examiner
D. Cockburn	Socially Influenced Agent Specialization in Heterogeneously Skill Agent Populations (PhD, University of Windsor, December 2011)	Examiner
D. Dechene	Energy Efficient Reduced Complexity Multi- Service, Multi-Channel Scheduling Techniques PhD Engineering, November 2011)	Examiner
Z. Al-Jazzaf	Trust-Based Service Selection (MSc, November 2011)	Examiner
R. Price	Effective Team Strategies using Dynamic Scripting (PhD, University of Windsor, September 2011)	Examiner
L. Mandel	Automated Discovery and Installation of Network Attached Peripheral Devices (MSc, September 2011)	Examiner
K. Charbonneau	On the Integration of Vehicular Ad-hoc Networks and Vision-Based Driver Assistance (MSc, May 2011)	Examiner
K. Ahmed	Policy Based Proactive Systems Management (MSc, December 2010)	Examiner
S. Koshraftar	Multiple Spaced Seeds for Oligonucleotide Design (MSc, December 2010)	Chair

M. Balakrishnan	Design and Implementation of a RF Front End for Software Defined Radios (MEngSc, December 2010)	Examiner
Z. Li	Characterizing and Diagnosing Architectural Degeneration of Software Systems from Defect Perspective (PhD, October 2010)	Examiner
D. Poulsen	But Today We Collect Videogames: Citation, Appropriation, The Open Work and The Neo- Baroque in Videogames (MA, October 2010)	Examiner
V. Mazalov	Geometric Techniques for Digital Ink (MSc, July 2010)	Chair
I. Kalugina	An Optimization Approach to Querying Monitored Business Processes (MSc, July 2010)	Examiner
Q. Ma B. Simmons	RNA Structure Alignment (MSc, April 2010) Strategy Trees: A Novel Approach to Policy- Based Management (PhD, February 2010)	Examiner Examiner
A. Ouda	Towards Automating Policy Based Management Systems (PhD, September 2009)	Examiner
T. Adianto	Belief-Desire-Intention in RoboCup (MSc, September 2009)	Examiner
G. Keller	Dynamic Resource Management in Virtualized Environments (MSc, August 2009)	Chair
K. Jajouei-Moghaddam		Examiner
M. Schmalz	The Not So Long Tail of Digital Play (MA, August 2008)	Examiner
T. Hayes	A Layered Framework for Surgical Simulation Development (MEng, June 2008)	Examiner
S. Burgess	Log File Analysis for Software Fault Localization (MSc, April 2008)	Examiner
O. Persaud	Creating a Sense of Community in the Classroom: An Investigation into Collaborative Learning Among Grade 12 Students (MEd, April 2008)	Examiner
M. Luccini	Cross-Layer Optimization of Network Performance over MIMO Mobile Wireless Channels (MEng, April 2008)	Examiner
A. McCloskey	Optimizing Resource Management in Data Centers through the Specification and Application of Service Level Agreements and Policies (MSc, December 2007)	Examiner
J. Zhang	Reflection in Meta: The Meta-Object Protocol (MSc, December 2007)	Examiner
M. Lloyd	Aldor Generics in Software Component Architectures (MSc, November 2007)	Chair
D. Siemon	The IP Per Process Model: Bringing End-to-end Network Connectivity to	Examiner
Y. Strauss	Applications (MSc, September 2007) Adding a Multimedia Server to an Existing Policy-Driven Autonomic System (MSc,	Examiner
A. Zia	August 2007) Texture Based Segmentation of Carotid Artery	Chair
Q. Zhao	Ultrasound Images SC-expressions in Object-Oriented Languages (PhD, August 2007)	Examiner

P. Patel	Real-Time Embedded Control using FPGA-based Softcore Processors (M E. Sc,	Examiner
A. Abdel-Dayem	June 2007) Computer Aided Diagnostic for Carotid Artery Ultrasound and Breast Mammogram (PhD, April 2007)	Examiner
E. Vieira	Smooth Congestion Control Algorithms (PhD, March 2007)	Examiner
M. Faisal	High Accuracy Optical Flow Method Based on a Theory for Warping: Implementation and Qualitative/Quantitative Evaluation (MSc, December 2006)	Chair
Y. Qiao	Mapping from Service Level Agreements to Policies (MSc, December 2006)	Examiner
Q. Wang	WLRU CPU Cache Replacement Algorithm (PhD, December 2006)	Examiner
T. Wallace	Advanced Lightpath Reservation in WDM Networks (MSc, October 2006)	Examiner
M. Galizia	Improving Efficiency and Performance of Distributed File Systems (MSc, August 2006)	Examiner
B. Stephenson	Optimizing the Java Virtual Machine Instruction Set by Despecialization and Multicode Substitution (PhD, May 2006)	Examiner
J. Miller	The Role of Software Architecture in Decision Making During Requirements Engineering (MSc, April 2006)	Examiner
A. Filatei	Implementation of Fast Polynomial Arithmetic in ALDOR (MSc, March 2006)	Chair
V. Hazell	RFID Simulator (MSc, Feb 2006)	Examiner
H. Liang	The Web Services Based Cyber Foraging Architecture (MSc, Feb. 2006)	Examiner
H. Li	Meta <java>: Augmenting and Unifying Java with Other Languages (MSc, Dec. 2005)</java>	Examiner
H. Wang	Skeleton-based Hook Echo Detection in Radar Imagery (MSc, Dec. 2005)	Chair
J. Moore	An Average Heart Model based on MRI Data (MSc, June 2005)	Chair
S. Pradhan	Aspects in Meta: Language-Neutral Aspect Weaving (MSc, May 2005)	Examiner
N. Brittain	Two Dimensional Dictionary Based Image Compression (MSc, April 2005)	Examiner
A. Ouda	Digital Watermarking Techniques for Image Security and Hidden Communications (PhD, Dec 2004)	Examiner
Y. Shen	CIAM: A Method for Developing Evolutionary Scenarios for Analysing Impact of Changes on Software Architectural Elements (MSc, Sept 2004)	Examiner
S. Cuddy	Service Selection Based on Dynamic Service Attributes (MSc, Sept 2004)	Examiner
J. Cai	Debugging a High Level Language via a Unified Interpreter and Compiler Runtime Environment (MSc, Aug 2004)	Examiner
H. Edwards	Using Existing Instrumentation for Transaction Generation and Performance Analysis in	Examiner
Y. Yin	Distributed Systems (PhD, July 2004) XML-Based Language Neutral Aspect Code	Examiner

	Weaving (MSc, June 2004)	
Q. Liu	Predictive Caching Systems (MSc, Jan 2004)	Examiner
H. Li	The Implementation of Tactile Graphics	Examiner
	Exploration (MSc, Sept 2003)	
S. Travaglini	An Exploratory Study of Interaction Design	Examiner
	Issues Using a Tiling Microworld (MSc,	
	Sept 2003)	
C. Wu	Feasibility of Predictive Caching to Improve	Examiner
	Web Server Performance (MSc, Aug 2003)	
M. Davidson	Data Compression with Antidictionaries:	Chair
	Epsilon-free Compression (MSc, June 2003)	
A. Hamou	Segmentation of Carotid Artery Ultrasound	Examiner
	Images (MSc, June 2003)	
H. Keep	A Mechanism for User-Defined Differentiated	Examiner
	Services (MSc, June 2003)	
G. Hu	Differential QoS Management (MSc, May 2003)	Chair
Z. Hong	Exploration of Language Support for	Chair
	Component Based Software Systems (MSc,	
	April 2003)	

e) Grants and Funding for Teaching and Classroom Support:

Year	Grantor	Description/Amount
2018	Microsoft	Part of pilot for Microsoft's Creators Education Program (hardware to be donated 2019)
2008	Nokia	\$7,500 in wireless devices (N82 phones and N810 Internet tablets) for CS457 and other courses
2007	Nokia	\$12,000 in wireless devices (N95 phones) for CS457
2007	Ministry of Research	\$300,000 was granted to Interactive Ontario (with Michael
	and Innovation	Katchabaw and Western as a partner) to fund research and
		teaching initiatives in game development across Ontario under the
		C3 Network project (Connect, Construct and Commercialize).
2007	ATI Technologies Inc.	\$1,000 in graphics hardware to support Xbox 360 lab for new Minor in Game Development
2006	Microsoft Canada	\$3,500 in Xbox 360 equipment for lab for new Minor in Game
2000	WICIOSOIL Carlada	Development
2005	ATI Technologies Inc.	\$5,000 in graphics hardware for new game lab for new Minor in
	· ·	Game Development
2005	Microsoft Canada	\$30,000 used towards equipment for new game lab for new Minor in
		Game Development
2003	Nokia	\$15,000 in wireless devices (3650 phones and N-Gage decks) and
		wireless service for CS457 and CS437/641

f) Curriculum Development and Dissemination

Philosophy 9232 (Ethical and Societal Implications of AI): A new course to support the Collaborative Specialization in AI, co-taught with the Department of Philosophy, as a seminar/discussion course on topics in the area.

CS4436/ Music 3863 (Game Audio Development): A collaborative pilot course between the Faculty of Music and the Department of Computer Science. This project-based course is designed to bring students from different disciplines together to look at music and audio in the context of video games, and explore these concepts hands-on through the development of a game together.

- CS4434/4478 (Master the Mainframe): IBM's Master the Mainframe program provides students access to hardware and software that is otherwise unavailable for exploring and studying modern mainframe environments. This new course provides an experiential learning opportunity for students around this opportunity.
- CS4437/4476 (Summer of Code): To allow students to tap into and leverage Google's Summer of Code program in their academic work, a new initiative was started to allow a student's participation in this program to work for course credit. It provides another opportunity for large, distributed, multi-institution software project experience for students.
- CS4438/4475 (Open Source Software Project): Started initiative to engage students in the multiuniversity UCOSP (Undergraduate Capstone Open Source Projects) program. This is a valuable distributed endeavour, and it was important to provide our students access to this opportunity to build and refine their team-based software development skills.
- CS470/4470 (Software Maintenance and Configuration): Started partnership with iWestern development group to allow students to work on updates for the official mobile application of the University of Western Ontario. This gives students hands on experience in an industrial environment, ultimately giving them credit in the application's development. Other partnerships include the Schulich School of Medicine and Dentistry with their Acuity STAR application.
- Minor in Game Development: An entirely new program in the Department of Computer Science at Western. Officially introduced in September 2006, and developed in the years prior with consultation from industry and other academics in the field.
- CS437/483/641/4483/9541 (Game Design): An entirely new course introduced at Western in 2002, and now a core course in the new Minor in Game Development. Developed from scratch and refreshed annually to keep up with the rapid evolution and advancement in the state-of-the-art in the games industry. Course materials borrowed for use at the University of Prince Edward Island, Simon Fraser University, University of Aberdeen, Algoma University College, Mount Royal College, Grande Prairie Regional College, and elsewhere. Course materials also solicited from Microsoft in 2005 for inclusion in their curriculum repository.
- CS480/4480 (Game Project): An entirely new course introduced at Western in 2006 as a capstone course for the new Minor in Game Development. Developed from scratch to provide a group project course to undertake the development of a reasonably large game project in an industrially-inspired setting.
- CS357/3357 (Computer Networks I): An intermediate networking course, redesigned in the 2002-2003 academic year to be more relevant to Computer Science students, with a top-down approach to networking. (Redesign was recommended by the departmental curriculum committee based on industry and student feedback from prior offerings of the course.) Updated annually to keep up with new trends and developments in Internet and other networking technologies.
- CS457/546/4457/9546 (Computer Networks II): A senior networking course, redesigned in 2003 as a continuation of refinements and enhancements to the sequence of networking courses in the Department of Computer Science at Western. Also updated annually to incorporate changes and advanced in networking technologies, which have a more significant impact on this course than CS357. Course materials have been adopted for use at other post-secondary institutions as they provide a solid treatment of advanced topics in networking that is difficult to find elsewhere.
- CS026/1026 (Computer Science Fundamentals I): An introductory computing and programming course, crucial to the streaming of first year students into Computer Science programs. Refined in 2005 and redesigned in 2006 to further engage and appeal to students through an examination of multimedia and other current and relevant topics.

Undergraduate Chair: From 2009 – 2016, duties as Undergraduate Chair included a considerable amount of curriculum design and development (new courses, new programs, and so on).

g) Other

In 2010-2016, led Discovery Café sessions aimed at cross-disciplinary mentoring of undergraduate Faculty of Science students.

In February 2013, mentored a team in the first annual Data Analytics Problem Solving (DAPS) workshop at the University of Western Ontario, leading the team to victory with a first place showing in the competition. In February 2014, served as the lead faculty organizer for the 2014 workshop rebranded as the Industry Problem Solving Week (IPSW). In February 2015 and 2016, mentored teams in the data analytics component of IPSW. In February 2017, while on sabbatical at Big Blue Bubble, served as an industry partner for the program.

10. UNIVERSITY ADMINISTRATIVE DUTIES:

Note: On sabbatical leave from July 2008 until June 2009 and from July 2106 until June 2017, with no administrative duties assigned.

a) Department, School or disciplinary area

2020 - Present 2020 - Present 2017 - 2021 2017 - 2021 2017 - Present 2017 - 2021 Summer 2015 2014 - 2015 2014 - Present Summer 2014 2013 - 2014 Summer 2013 2012 - 2013 2011 - 2016 2010 - 2012 2009 - 2016 2009 - 2016 2009 - 2016 2009 - 2016 2009 - 2010 2007 - 2008 2007 - 2008 2006 - 2008	Annual Performance Evaluation Committee Bit-by-Bit Summer Camp Faculty Coordinator TRICS Hosting Committee Undergraduate Counselling Committee (Chair) Appointments Committee Undergraduate Chair Department Executive Committee Curriculum Committee (Chair) Workload Committee Undergraduate Counselling and Appeals Committee Curriculum Committee Annual Performance Evaluation Committee Workload Committee Curriculum Committee PhD Comprehensive Examination Committee Recruitment Committee Bit-by-bit Summer Camp Advisory Committee Space Committee
Summer 2002 1998 – 2008	Space Committee Outreach Committee (Served as Chair since September 2002 to June 2008)

b) Faculty	
	Educational Policy Committee (July – December, 2020 and 2021)
	Undergraduate Chairs Committee (July – December, 2020 and 2021)
2019	Data Science Working Group
2019	Fairness and Accommodations Working Group
2014 – 2016	Faculty of Science Communications Pipeline Committee
2013 – 2016	Working Group on Western Integrated Science Curriculum (WISC)
2013 – 2014	Faculty of Science Graduate Advisory Committee
2013 – 2014	Industry Problem Solving Workshop (IPSW) Executive Committee (Served
2010 2011	as Chair in 2014)
2013 – 2014	Faculty of Science Task Force on Ethics, Honesty, and Academic Integrity
2011 – 2014	Faculty of Science Nominations Committee
Summer 2011	Faculty of Science Re-Discovery Grant Selection Committee
2010 – 2012	Faculty of Science ADF Grant Review Committee
Summer 2010	Faculty of Science Re-Discovery Grant Selection Committee
2009 – 2016	Educational Policy Committee
2009 – 2016	Undergraduate Chairs Committee
2009 – 2010	Ad Hoc May Events Committee for Outreach
2007 – 2008	Dean's Advisory Committee on Science Education
2007 – 2008	Faculty of Science Outreach Review Committee
2007 – 2008	Faculty of Science Interdisciplinary Curriculum Committee
2007 – 2008	Selection Committee for Faculty of Science Outreach Award
2005	Selection Committee for Faculty of Science Outleach Award
c) University	
2020 - Present	Western Entrepreneurship Steering Team (WEST)
2018 – 2021	Subcommittee on Information Technology (SUIT – a subcommittee of the Senate
2010 2021	Committee on University Planning (SCUP))
2014 - Present	Mobile Apps Steering Group (Supports the WesternU Mobile app)
2011 – 2014	Mobile Apps Working Group (Supports the iWestern mobile app)
2008	Working Group on Information Security (WGIS – reporting to SUIT)
2006	Ad Hoc Committee to Review University Policies on the Use of Technology
2000	During Tests and Examinations
2005 – 2007	Working Group on Information Security (WGIS – reporting to SUIT). This
2000 2001	includes chairing a subgroup on the loss of laptops and portable data devices,
	and serving on another subgroup on the safe disposal of data devices.
2003 – 2004	SCITS Ad-hoc Subcommittee to Review ADF Computing-related Applications
2003 2004	Senate Committee on Information Technology Services (SCITS)
2002 – 2005	Subcommittee on Information Security (SUIS – a subcommittee of SCITS, and
2002 – 2003	predecessor to WGIS)
1999 – 2001	Subcommittee on the World Wide Web (SUWWW – a subcommittee of SCITS)
1999 – 2001 1999 – 2000	Subcommittee on the world wide web (SOWWW – a subcommittee of SCITS) Subcommittee on Information Security (SUIS – a subcommittee of SCITS)
1999 – 2000 1998 – 1999	Senate Committee on Information Technology Services (SCITS)
1998 – 1999 1998 – 1999	
1990 – 1999	Subcommittee on Computing and Networking Services (SUCNS – a subcommittee of SCITS)
1998 – 1999	Campus Computer Security Subcommittee (CCSS – a subcommittee of SCITS,

11. **COMMUNITY SERVICE:**

a) General Outreach

A great number of the activities carried out by the Outreach Committee of the Department of Computer Science involve a variety of community service functions. This includes high school visits, participation in science fairs and competitions, the operation of the Bit-by-Bit summer

and predecessor to SUIS)

computer camp, and a variety of other activities (open houses, workshops, tours, and so on) geared towards students, teachers, and academic counsellors in the community.

As Undergraduate Chair, liaison was maintained with the Outreach Committee to consult with curriculum-related issues, promotional materials and events, and so on.

b) External Committee Membership

Service has also been dedicated towards committees outside of the University related to educational and curriculum issues, particularly concerning game development.

2018 – Present Western Innovation Ambassador
 2010 – 2016 Advisory Board Member for Big Blue Bubble, Inc.
 2008 – Present IGDA London Chapter
 2008 TechAlliance Advisory Council
 2007 – Present London Gaming Cluster (consisting of LEDC, Western, Fanshawe College and representatives from the London game development industry)
 2006 – Present IGDA Special Interest Group on Education (particularly curriculum)
 2006 – 2008 Ontario Ministry of Economic Development and Trade's Game Initiative Committee (also its People Resources Subcommittee)

c) Media Releases and Other Media Contacts

Several contributions have been made to the community over the past year in the form of various media releases to the general public and interviews. This includes the following:

Date	Venue	Topic
02/2021	XFM Radio	Mobile augmented reality
02/2021	XFM Radio	Game development during the pandemic
11/2019	MIT Podcast Series	Artificial intelligence in games, including ethical and social issues
07/2019	Global National	Fortnite World Cup
05/2019	CTV News	Loot boxes in video games
07/2018	Western Science Speaks	Living worlds in video games
11/2017	Business London	Interesting offices in the London area
04/2016	Western News	Princeton Review on gaming results and gaming in the London community
10/2015	XFM Radio	Computer viruses and malware on mobile devices
10/2015	Western Gazette	Virtual reality and pornography
07/2015	London Free Press	Corporate security in the game
		development industry
04/2015	London Fuse	Gaming and Game Development
02/2015	Western News	Computer camps for kids
02/2015	Western Gazette	Virtual and augmented reality technologies
02/2015	Western News	Freemium games
10/2014	Western News	Natural Language Understanding in Video Games
08/2014	Rogers TV (Western Revealed)	Bit By Bit Summer Camp
12/2013	Rogers TV (Daytime)	Game Development at Western and in London
11/2013	The Ryersonian	Gaming and Game Development Programs in Academia
11/2013	AM 1290 (Ask the Experts)	Game Development at Western
07/2013	London Free Press	Awesome London Katamari project

11/2012 11/2012	Western News Inside (LHSC publication in London Free Press and elsewhere)	Future of Video Games VR/AR for Parkinsons Rehabilitation
09/2012	Western Gazette	VR/AR for Parkinsons Rehabilitation
09/2012	Western News	VR/AR for Parkinsons Rehabilitation
08/2012	CTV News	VR/AR for Parkinsons Rehabilitation
10/2011	CIXX Radio	Social and educational issues with
		virtual worlds and video games
09/2011	CIXX Radio	Video game addiction
06/2011	Western News	Mobile app development in Western
		Computer Science courses
01/2011	London Free Press	Mobile app plagiarism and copying
11/2010	Western Gazette	Gaming CECR for London
11/2010	London Free Press	DIG London 2010 and the local gaming
		community
09/2010	Business London Magazine	Cyborg Trading Systems collaborations
	_	with Western
09/2010	CIXX Radio	AMEE WIF grant approval
09/2010	Western News	AMEE WIF grant approval
06/2010	London Free Press	New gaming CECR led by the London
		Gaming Cluster
04/2010	Digital Media 2 Market Showcase	Gaming Research at Western
02/2010	Western Gazette	Middlesex-London Health Unit Game
		"Adventures in Sex City"
01/2010	Western Gazette	Video games engaging in Haiti-related
		fundraising efforts
01/2010	London Free Press	Bit-by-Bit summer computer camp and
4.4.0000	NA 4 0 4	educational summer camps in general
11/2009	Western Gazette	Migration to IPv6
10/2009	Western News	DIG London
10/2009	CIXX Radio	Internet usage in Canada
11/2008 07/2008	London Free Press CTV News Net	DIG London and the games industry E3
05/2008	Rogers TV	The Scientific Journey and virtual worlds
04/2008	London Free Press	The London video games industry
03/2008	CIXX Radio	High definition video format war
03/2008	CIXX Radio	The Algorithmic Music Evolution Engine
03/2008	Western News	The Algorithmic Music Evolution Engine,
00/2000	Western News	and recent NSERC I2I funding
02/2008	CIXX/AM 980 Radio	Violence in video games
02/2008	CIXX/AM 980 Radio	Inclusiveness in video games
01/2008	CIXX Radio	Online games
01/2008	CIXX Radio	The video games industry
11/2007	The Weal (SAIT Polytechnic Student	Addiction in gaming
	Newspaper)	
10/2007	Technology Review	Latency and lag in networked games
10/2007	London Free Press	Playing the Gallery event
09/2007	Western Gazette	Playing the Gallery event
09/2007	Western Gazette	Internet and network security
08/2007	ComputerWorld Canada	The IT skills gap
08/2007	Game Career Guide	Academic game development using
		Microsoft's XNA Game Studio Express
07/2007	CHRW Radio	All girls week in Bit-by-Bit summer
07/0007	OIVV Dadia	computer camp
07/2007	CIXX Radio	Bit-by-Bit summer computer camp
06/2007	Edmonton Journal	Professional game players
06/2007	Canadian Press	The Canadian Game Studies
00/2007	Canadian F1655	The Canadian Game Studies

		Association and the games industry
06/2007	London Free Press	in Ontario Shortage of game developers in the games industry
04/2007	Rogers First Local News	Western's Minor in Game Development and area game companies
04/2007 03/2007 02/2007 02/2007 01/2007 12/2006 11/2006	CIXX Radio Information Professional Magazine National Post Rogers TV Et Cetera (Humber College newspaper) CIXX Radio National Post	Recent Blackberry service outage IT professionalism in North America Game development and gender issues The history of video games Video game addiction Violence in video games The IT industry and education in IT and
11/2006 11/2006 10/2006	CTV Newsnet CIXX Radio Microsoft X06 Press Event (conducted interviews with CBC News, Digital Journal, 7 Jour (French), Toronto Sun, Journal de Montreal (French), Space (TV), Gaming Excellence (online magazine), YTV Gamepad, M.ne (French), La Press (French), CityTV, Hamilton Spectator, Electric Playground plus three freelancers representing	
10/2006 10/2006	other publications) Western News London Free Press	Future Play conference Future Play conference, game companies in London
09/2006	The Charlaton (Carleton student newspaper)	Nintendo's new Wii game console
09/2006 08/2006	Western News ITBusiness.ca	Western's Minor in Game Development Western's Minor in Game Development and Microsoft's XNA Game Studio Express
08/2006 08/2006	CBC Radio Sudbury Star	Dell Recall of Exploding Batteries Western's Minor in Game Development
08/2006	Globe and Mail	Canadian Awards for the Electronic and Animated Arts (CAEAA)
07/2006	Toronto Sun	Issues in computer science enrolment, women in technology, and so on
06/2006 06/2006 06/2006 06/2006	AM 800 Radio Rogers First Local News London Free Press Microsoft Press Event	Western's Minor in Game Development Western's Minor in Game Development Western's Minor in Game Development Discussing issues in computer science enrolment, women in technology, and so on.
05/2006 05/2006	Rogers First Local News London Free Press, Exeter Times- Advocate, Clinton News-Record, Lakeshore Advance	Bit-by-Bit summer computer camp Addiction to video games (from a speaking engagement at a town hall meeting)
05/2006	Documentary: In the Game (to air on G4/TechTV, Discovery, and elsewhere in 2007)	Issues and challenges in the game development industry
03/2006	London Free Press	Technical and programming complexities of Sony's PS3
03/2006	National Post	Industrial relevance of computer science skills and backgrounds

03/2006	ComputerWorld Canada	Using game development methods and technologies in developing enterprise applications
03/2006	Backbone Magazine (also recorded for radio broadcast)	Game ethics, Easter eggs, and hacking
02/2006	National Post	Social engineering on the Internet
01/2006	Fanshawe College	Social and ethical issues in the future of video games
12/2005	National Post	Political video games and the federal election
12/2005	Hamilton Spectator	Social and serious games
12/2005	Western Gazette	Maturing content in video games
11/2005	ITBusiness.ca	Game industry influences on the business world
08/2005	Hamilton Spectator	Issues in serious games
06/2005	NewPL TV with Nick Paparella	Pac-Man's 25 th anniversary
06/2005	CFOS Radio with Jim Birchard	Pac-Man's 25 th anniversary
06/2005	London Free Press	Classic video games
05/2005	Hamilton Spectator	Video game consoles
05/2005	ITBusiness.ca	Game development in academia
05/2005	CP24 TV with David Onley	Game development in academia
04/2005	London Free Press	LDSTF
03/2005	Western Gazette	Video game addiction
01/2004	Kitchener Record	Violence in video games
12/2004	Canadian Press	Violence in video games
11/2004	Fanshawe College	Violence in video games
10/2004	Western Gazette	Internet pornography
09/2004	AM 800 Radio with Paul McDonald	History of the Internet
05/2004	AM 980 Radio with George Clark	Unsolicited spam e-mail
03/2004	NewPL TV with Sean Irvine	Violence in video games
03/2004	CBC Radio with Erika Ritter	Violence in video games
03/2004	Corus Radio with Stirling Faux	Violence in video games
03/2004	Western Gazette	Violence in video games
03/2004	London this Week	Violence in video games
03/2004	Halifax Herald	Violence in video games

d) Other Activities

Many schools and parent groups outside of traditional Outreach and Undergraduate Chair duties have been spoken to on the subject of violence in video games, addiction to video games, and phishing. A speaking engagement to the London Chamber of Commerce was made in January 2006 entitled "Open Source Alternatives for Modern IT Infrastructures". Another talk was given as a featured speaker during the National Media Education Week in November 2006 at the London Public Library, on the subject of video game addiction. In March 2007, a presentation was given as a featured speaker at the Nexus Conference for gifted children held in London, on the future of video games and game development.

Active involvement has also occurred in many science fair activities outside of Outreach and Undergraduate Chair duties. This includes judging at the 2004 London District Science and Technology Fair (LDSTF), acting as the technology division chief at the 2005, 2006, 2007, and 2008 LDSTF, and serving on the selection committee for Team Canada at the 2005, 2006, 2007, and 2008 International Science and Engineering Fairs.

Extensive discussions and meetings have also been held with the London Economic Development Corporation, the Ontario Media Development Corporation, Interactive Ontario, and the Ontario Ministry of Economic Development and Trade with respect to the video game industry in London and in the province of Ontario. This is to promote both the games industry, and Western's position and role in this industry.

In November 2014, served as a Guinness World Records Expert Witness / Auditor for Digital Extremes' World Record Attempt at Concurrent Moustaches in their video game Warframe for Movember. This event took place in London, Ontario, Canada.