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EDUCATION

- **Doctor of Philosophy in Computer Science.** *The Sonel Mapping Acoustical Modeling Method.* Department of Engineering and Computer Science, York University. Toronto, Ontario, Canada. September 2006. Supervisor: Dr. Michael Jenkin. Co-supervisor: Dr. Evangelos Milios.
- **Master of Science in Computer Science.** *Eyes 'n Ears: A System for Attentive Teleconferencing.* Department of Engineering and Computer Science, York University. Toronto, Ontario, Canada. April 2001. Supervisor: Dr. Michael Jenkin. Co-supervisor: Dr. Evangelos Milios.
- **Bachelor of Science in Computer Science** (*graduated with honours and first class with distinction*). Department of Engineering and Computer Science, York University. Toronto, Ontario, Canada. May 1999.
- **Electronics Engineering Technician Diploma.** Humber College of Applied Arts and Technology. Etobicoke, Ontario, Canada (two more courses required).
- **Electronics Basics Program** (*graduated with honours*). Humber College of Applied Arts and Technology. Etobicoke, Ontario, Canada. June 1994.

EMPLOYMENT HISTORY

- **Associate Professor (July 2011 - present); Program Director (July 2015 – June 2016, July 2018 – June 2019).** Game Development and Interactive Media program, Faculty of Business and Information Technology, Ontario Tech University. Oshawa, Ontario, Canada.
- **Technical Lead (April 2018 – present).** Collaborative Human Immersive Interaction Laboratory (CHISIL), Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada.
- **Assistant Professor (August 2006 – June 2011).** Game Development and Interactive Media program, Software Informatics Research Centre, Oshawa, Ontario, Canada.
- **Honorable Guest Professor (April 2014 – present).** Graduate School of Informatics, Shizuoka University, Hamamatsu, Japan.
- **Adjunct Professor (May 2007 - present).** Faculty of Graduate Studies, Department of Engineering and Computer Science, York University. Toronto, Ontario, Canada.
- **Course Director (Contract Faculty, January 2001 – August 2006).** Department of Engineering and Computer Science, York University. Toronto, Ontario, Canada.
- **Course Director (Contract Faculty, April 2005 – August 2005).** Department of Computer Science, University of Toronto. Toronto, Ontario, Canada.
- **Course Director (Contract Faculty, January 2005 – May 2006).** School of Applied Technology, Humber College of Applied Arts and Technology. Etobicoke, Ontario, Canada.
- **Teaching Assistant (January 1999 – August 2006).** Department of Computer Science and Engineering, York University. Toronto, Ontario, Canada.
- **Research Assistant (May 1996 – April 1999).** Department of Computer Science and Engineering, York University. Toronto, Ontario, Canada.
- **Pinball and Video Game Technician (May 1993 – August 1996).** Seven Star Amusements. Toronto, Ontario, Canada.

ACADEMIC HONORS AND AWARDS

- *2024 Ontario Tech University Research Excellence Award – Established Researcher Category, July 2024.*
- *Research Excellence Award, Established Researchers Category, Faculty of Business and Information Technology, Ontario Tech University, April, 2024.*
- *Ontario Tech University, 2021 Research Excellence Chair, July 1, 2022 – June 30, 2024.*

Curriculum Vitae

- *Research Excellence Award, Senior Research Category*, Faculty of Business and Information Technology, Ontario Tech University, March, 2020.
- *Greek Diaspora Fellowship 2019* (funded by a grant from the Stavros Niarchos Foundation (SNF) to the Institute of International Education (IIE)), to conduct research in Greece. November 2019.
- *Australian Government 2018 Endeavour Executive Fellowship* to conduct research in Australia.
- At the invitation of the Federal Republic of Germany, I took part in the week-long *Electronic Start-Up: Industry 4.0 in Germany, Country of Innovation, Visitors Programme*, Germany. August 2016.
- *Natural Sciences and Engineering Research Council of Canada (NSERC) and Japan Society for the Promotion of Science (JSPS) Fellowship for Research in Japan*. May 2014.
- *Google Faculty Research Award* (co-recipient). July 2010.
- *IBM Center for Advanced Studies (CAS) Faculty Award*. June 2009.
- *Joseph Liu Thesis Award*, Engineering and Computer Science, York University. June 2007.
- *York University President's Dissertation Scholarship*. September 2004 – August 2005.
- *Ontario Graduate Scholarships in Science and Technology (OGSST)*. May 2003 – April 2004.
- *Institute for Robotics and Intelligent Systems (IRIS) Student Fellowship*. June 2003.
- *Gold (first place) poster*. 12th Annual Canadian Conference on Intelligent Systems, Calgary, Alberta, Canada. May 29 - June 1, 2002.
- *Natural Sciences and Engineering Research Council of Canada (NSERC), Post Graduate Scholarship (PGS B)*. May 2001 – April 2003.
- *Ontario Graduate Student Scholarship (OGS)*. April 2001 (declined in favor of NSERC).
- *Joseph Liu Thesis Award*, Engineering Computer Science, York University. June 2001.
- *Center for Research in Earth and Space Technology, Graduate Student Award*. May 2001.
- *Center for Research in Earth and Space Technology, Graduate Student Award*. October 2001.
- *Allen S. Berg Award* (in memory of Nancy Waisbord) for consistently demonstrating excellence in Computer Science. Dept. of Computer Science and Engineering. York University. June 1999.
- *Natural Sciences and Engineering Research Council of Canada (NSERC), Post Graduate Scholarship (PGS A)*. May 1999 – April 2001.
- *Ontario Graduate Student Scholarship (OGS)*. April 1999 (declined in favor of NSERC).
- *York University Continuing Student Scholarship*. September 1998.
- *York University Science Undergraduate Research Award*. May 1998 – August 1998.
- *York University Science Undergraduate Research Award*. May 1997 – August 1997.
- *York University Continuing Student Scholarship*. September 1996.
- *York University Continuing Student Scholarship*. April 1996.

RESEARCH

Past and Current Research Grants and Funding (External Funding Sources: Non-UOIT)

Description	Year	Amount
C. McKay, McCormick-Brighton, K. Bradstock, A. LeSage, B. Kapralos, T. Eickmeier, and J. Hunter. Transforming early years, educator efficacy through immersive training and simulation. <i>Natural Sciences and Engineering Research Council of Canada (NSERC), College and Community Social Innovation Fund (CCSIF)</i> .	Sep 2025 – Aug 2028	\$359,004
B. Kapralos. Development of an authoring platform to create inclusive immersive virtual learning environments for cognitive and psychomotor skills development. <i>Natural Sciences and Engineering Research Council of Canada (NSERC) Discovery Development Grant</i> .	Apr 2025 – Mar 2027	\$44,000
B. Kapralos, T. Aoki, H. Inokawa, A. Dubrowski, M. Jenkin, K. Kanev, KC Collins, A. Quevedo, C. DaSilva, E. Peisachovich, and F. Alam. Virtual psychomotor-based skills development using pseudo-haptics. <i>Research Center for Biomedical Engineering, Shizuoka University, Collaboration Grant</i> .	Apr 2024 – Mar 2025	\$3,000
C. da Silva, B. Kapralos, A. Dubrowski, A. Quevedo, E. Peisachovich, C. Anyinam, M. Dasterjerdi, T. Shute, S. Coffey, L. Graham, and L. Endersby. International educated NurseXcel: Virtual serious games. <i>Social Sciences and Humanities Research Council of Canada (SSHRC), Insight Grants</i> .	Mar 2024 – Feb 2029	\$201,342
B. Kapralos and A. Dubrowski. Designing a serious gaming authoring platform:	Mar. 2024 –	\$7,000

Curriculum Vitae

Determining educator requirements. <i>Social Sciences and Humanities Research Council of Canada (SSHRC), Small Grants (SSG) Program – Explore Grant.</i>	Feb 2025	
B. Kapralos with Ontario Shores Centre for Mental Health Sciences (industry partner). VR-SIM Carers authoring platform (VR-CAP). <i>MITACS Accelerate.</i>	Mar. 2024 – Feb. 2025	\$90,000
J. Arcand, J. Hughes, B. Kapralos, A. LeSage, W. Lou, E. Vogel. Efficacy of a digital school-based nutrition education intervention to improve healthy eating knowledge, attitudes and behaviours. <i>Canadian Institutes for Health Research (CIHR), Operating Grant.</i>	Apr. 2023 – Mar. 2026	\$481,950
S. Dogra, D. Bouchard, J. Copeland, D. Dunstan, D. Heyland, S. Horton, and B. Kapralos. Co-creation and feasibility assessment of a staircase approach to reduce sedentary time and increase physical activity in older adults. <i>Canadian Institutes of Health Research (CIHR), Project Grant - Priority Announcement, Aging.</i>	Apr. 2023 – Mar. 2024	\$100,000
W. H. Gage, C. da Silva, B. Kapralos, A. Dubrowski, S. Coffey, C. Anyinam, L. Graham, E. Peisachovich, A. Torres, F. Singh. Palliative care in long-term care: A virtual serious game. <i>eCampus Ontario - Virtual Learning Strategy - Digital Content.</i>	Jul 2022 – Jan 2023	\$70,348
A. Burhan, M. Smith, T. Raji, J. Sadoyov, A. Dubrowski, B. Kapralos, A. Shnall, I. Rubinstein, R. Beleno. Dementia caregivers skills training through virtual reality simulation (VR-SIM CARERS). <i>National Research Council's Aging in Place Challenge Program and Canadian Institutes of Health Research Institute of Aging.</i>	Apr 2022 – Mar 2025	\$400,000
B. Gamble, A. Dubrowski, S. Felder, M. A. Rostek. Exploring and describing the life experiences of Canadian female Veterans during, pre and post military service. <i>Social Sciences and Humanities Research Council of Canada (SSHRC), Insight Grants.</i>	Apr 2022 – Mar 2025	\$176,385
W. Sun, A. Quevedo, A. Dubrowski, N. Rodrigues, R. Ingino, P. Coppin, B. Gamble, M. Lemonde, B. Kapralos, and Ontario Shores Center for Mental Health Sciences. Examining the physical, social and educational benefits of CLEAN exergame for persons with dementia to promote hand hygiene and influenza vaccine uptake: A feasibility study. <i>Social Sciences and Humanities Research Council of Canada. Insight Grant.</i>	Apr 2022 – Mar. 2024	\$99,965
B. Kapralos, H. Inokawa, A. Dubrowski, M. Jenkin, K. Kanev, KC Collins, A. Quevedo, C. DaSilva, E. Peisachovich, and F. Alam. Virtual psychomotor-based skills development using pseudo-haptics. <i>Research Center for Biomedical Engineering, Shizuoka University, Collaboration Grant.</i>	Apr. 2022 – Mar. 2023	\$6,000
B, Gamble, B. Kapralos, A. Dubrowski, L. Bourne, and E. Moreau. Micro-credential badges: Virtual interprofessional education for medical laboratory (ML) learners. <i>Ontario Ministry of Colleges and Universities, and Ministry of Labour, Training and Skills Development.</i>	Jan. 2022 – May 2022	\$217,716
Development of micro-credential in dementia care to support capacity building in long-term care using GEM-TECH (Gamified Educational Multimodal Technology Platform).	Jan. 2022 – May 2022	\$300,000
E. Peisachovich, A. Dubrowski, C. Da Silva, B. Kapralos, D. Sinclair, R. Jokel, L. Appel, D. Mahdieh, and G. Maheux-Pelletier. AREduX augmented reality experience and experiential education medium to teach empathy to healthcare providers and caregivers of persons living with dementia. <i>Social Sciences and Humanities Research Council of Canada (SSHRC), Insight Grants.</i>	Apr 2021 – Mar 2024	\$277,866
C. Da Silva, B. Kapralos, A. Dubrowski, A. Torres, S. Coffey, C. Anyinam, L. Graham, and E. Peisachovich. International educated nurse-centered virtual serious game. <i>eCampus Virtual Learning Strategy,</i>	Mar 2021 – Feb 2022	\$90,000
B. Kapralos et al. Examining the effect of sound on haptic fidelity perception in virtual environments. <i>2021 Cooperative Research at Research Center of Biomedical Engineering, Research Institute of Electronics (RIE), Shizuoka University, Japan.</i>	Mar 2021 – Feb 2022	\$2,000
A. Dubrowski, B. Kapralos, and A. Torres. Enhancing educators' experience with a collaborative learning management system (GEN-LMS). <i>Social Sciences and Humanities Research Council of Canada Small Grants Program 2021.</i>	Mar 2021 – Mar 2022	\$6,914.00
L. Robertson, B. Muirehead, and B. Kapralos. Ready, Teacher One. <i>Social Sciences and Humanities Research Council of Canada (SSHRC), Partnership Engage Grants.</i>	Dec 2020 – Nov 2021	\$24,811

Curriculum Vitae

A. Dubrowski, B. Kapralos, P. Mutombo, and A. Torres. Using an innovative tool to teach and test cultural competencies to enhance age-friendly communities. <i>Teaching City Grant, City of Oshawa</i> .	Aug 2020 – Jul 2021	\$20,000
B. Kapralos et al. Examining the effect of sound on haptic fidelity perception in virtual environments. <i>2020 Cooperative Research at Research Center of Biomedical Engineering, Research Institute of Electronics, Shizuoka University, Hamamatsu, Japan</i> .	Jun 2020 – Mar 2021	\$2,200
W. Tavares, F. Alam, C. Matava, B. Kapralos, A. Dubrowski, and R. Brydges. Exploring the validity of virtual clinical performance assessments. <i>The Medical Council of Canada, Research in Clinical Assessment Grant Competition</i> .	Jun 2020 – May 2021	\$37,444
J. Goodwin, M. Williams-Bell, B. Murphy, B. Kapralos, A. Hogue, and C. McGregor. Enriching firefighter training through the development of a novel virtual reality training simulation for personalized, precision skill and resilience training. <i>Natural Sciences and Engineering Research Council of Canada, College Community Social Innovation Fund</i> .	Dec. 2019 – Nov. 2022	\$358,920
W. Sun, M. Lemonde, A. Quevedo, R. Liscano, B. Kapralos, A. Tokuhiko, and E. Bartfay. Advancing reminiscence therapy through virtual reality application to promote social connectedness of persons with dementia. <i>Ontario Shores-Ontario Tech University Joint Call for Proposals in Dementia Care 2019</i> .	Oct 2019 – Dec 2020	\$25,000
C. Da Silva, C. Anyinam, B. Kapralos, E. Peisachovich, R. Gal, S. Coffey, and T. Shute. Person-centered serious games for mental health education. <i>Social Sciences and Humanities Research Council of Canada (SSHRC), Insight Development Grants</i> .	Jun 2019 – May 2021	\$46,144
B. Kapralos et al. Examining the effect of sound on haptic fidelity perception in virtual environments. <i>2019 Cooperative Research at Research Center of Biomedical Engineering, Research Institute of Electronics (RIE), Shizuoka University, Hamamatsu, Japan</i> .	Jun 2019 – Mar 2020	\$2,200
B. Kapralos. Effective immersive environments; multi-modal interactions, and user interface customization. <i>Natural Sciences and Engineering Research Council of Canada (NSERC) Discovery Grant</i> .	Apr 2019 – Mar 2024	\$170,000
B. Kapralos and A. Quevedo. Usability testing of a gamified educational network. <i>Social Sciences and Humanities Research Council of Canada Small Grants Program 2018</i> .	Jun 2018 – Mar 2019	\$2,000
B. Kapralos et al. Examining the effect of sound on haptic fidelity perception in virtual environments. <i>2018 Cooperative Research at Research Center of Biomedical Engineering, Research Institute of Electronics (RIE), Shizuoka University, Hamamatsu, Japan</i> .	Jun 2018 – Mar 2019	\$2,300
B. Pérez, A. J. Uribe Quevedo, N. Jaimes, B. Kapralos, and D. Rojas. Diseño y desarrollo de un prototipo de simulador con realidad virtual para el tratamiento de infarto de miocardio fase I. <i>Universidad Militar Nueva Granada (UMMG), Bogota, Colombia</i> .	Feb 2018 – Jan 2019	\$35,000
J. Hughes, C. Collins, J. Arcand, M. DiGiuseppe, S. Dogra, A. Hogue, B. Kapralos, R. Kay, J. Laffier, A. Lesage, A. Mamolo, D. Petrarca, N. Wattie, G. Gadanidis, and I. K. Namukasa. There's an app for that: Designing, developing, researching educational apps. <i>Ontario Research Fund (ORF)</i> .	Aug. 2017 – Jul 2022	\$1,175,000
B. Kapralos et al. Examining the effect of sound on haptic fidelity perception in virtual environments. <i>2017 Cooperative Research at Research Center of Biomedical Engineering, Research Institute of Electronics (RIE), Shizuoka University, Hamamatsu, Japan</i> .	Jun 2017 – Mar 2018	\$2,300
A. J. Uribe Quevedo, B. Kapralos, D. Rojas, B. Pérez, and L. Peñuela. Development of a multimodal tool for cardiac auscultation training phase I. <i>Universidad Militar Nueva Granada, Bogota, Colombia</i> .	Feb 2017 – Jan 2018	\$21,000
A. J. Uribe Quevedo, B. Kapralos, D. Rojas, and B. Pérez. Development of a monitoring posture exergame prototype based on occupational health exercises for maintenance workers phase I. <i>Universidad Militar Nueva Granada (UMMG), Bogota, Colombia</i> .	Feb 2017 – Jan 2018	\$21,000
B. Kapralos et al. Cardiac auscultation skills development through medical simulation-based training. <i>2016 Cooperative Research at Research Center of Biomedical Engineering, Research Institute of Electronics (RIE), Shizuoka University, Japan</i> .	Jun 2016 – Mar 2017	\$2,600

Curriculum Vitae

B. Kapralos et al. Development of a novel tabletop and mobile imaging device based system to facilitate learner-centric education. <i>2015 Cooperative Research Project, Research Institute of Electronics (RIE), Shizuoka University, Hamamatsu, Japan.</i>	Apr 2015 – Mar 2016	\$3,000
A. Whitehead, R. Biddle, S. Chiasson, L. Frankel, A. Girouard, N. Graham, C. Herdman, B. Kapralos, and A. Ramirez. Collaborative learning of usability experiences (CLUE). <i>Natural Sciences and Engineering Research Council of Canada (NSERC) Collaborative Research and Training Experience Program (Industrial Stream).</i>	May 2015 – Apr 2021	1,650,000
S. Dunn, S. Bhatia, O. Bhattacharyya, A. Chan, E. Feuerstein, B. Kapralos, and L. McCarthy. Development and pilot evaluation of an interactive mobile app (M-app) to support decision-making for emergency contraception. <i>Alternative Funding Plans for Academic Health Science Centres, Innovation Fund.</i>	Jan 2015 – Feb 2016	\$13,850
K. Collins, R. Dockwray, and B. Kapralos. Understanding and improving musical user-generated content in video games. <i>Social Sciences and Humanities Research Council of Canada (SSHRC) Insight Grants.</i>	May 2014 – Apr 2018	\$224,820
B. Kapralos. Spatial sound generation and perceptual-based rendering for virtual environments and serious games. <i>Natural Sciences and Engineering Research Council of Canada (NSERC) Discovery Grant.</i>	May 2014 – Apr 2019	\$100,000
B. Kapralos (with industrial partner Spincore Inc.). An engaging vision-based exergame for exercise and rehabilitation. <i>Natural Sciences and Engineering Research Council of Canada (NSERC) Engage Grants.</i>	May 2014 – Nov 2014	\$24,509
B. Kapralos, A. Dubrowski, M. Hogan, N. Randall, L. Brudnoy, K. Collins, A. Sheppard, and F. Haji. A serious game for medical-based cultural competence education and training. <i>Ontario Simulation Network, Simulation Research & Innovation Grant.</i>	May 2014 – Apr 2015	\$24,915
L. Grierson, A. Dubrowski, B. Kapralos, R. Brydges, C. Bernard, and D. Musson. Observational practice and educational networking: extending the simulation-based education beyond the simulation laboratory. <i>Ontario Simulation Network (Sim-One), Simulation Research & Innovation Grant.</i>	Apr 2014 – Mar 2015	\$25,000
B. Kapralos et al. Collaborative interprofessional education for critical care teams with augmented e-learning environments engaging advanced imaging devices. <i>2014 Cooperative Research Project, Research Institute of Electronics (RIE), Shizuoka University, Hamamatsu, Japan.</i>	Apr 2014– Mar 2015	\$3,200
B. Kapralos et al. Promoting collaborative interprofessional education for pediatric critical care teams with a table-top computer-based virtual e-learning environment. <i>2013 Cooperative Research Project, Research Institute of Electronics (RIE), Shizuoka University, Hamamatsu, Japan.</i>	May 2013– Apr 2014	\$7,000
L. Dempster, E. Lam, K. Burgess, J. Posluns, J. Fiege, A. Hayes, A. Dubrowski, J. Cheung, B. Kapralos, and L. McKay. Communication skills training: An integrated on-line and classroom design using standardized patients and peer role playing. <i>Faculty of Dentistry, University of Toronto, 2013 Deans Endowment Enrichment Fund.</i>	2013	\$10,192
L. Harris, M. Jenkin, R. Allison, L. Wilcox, W. Gage, A. Hogue, B. Kapralos, and J. Campos. Full field vision and spatial orientation. <i>Canada Foundation for Innovation (CFI), Leading Edge Fund (2012).</i>	2012	\$790,891
C. Whitehead, A. Dubrowski, L. McCarthy, H. Carnahan, B. Kapralos, J. Cheung. Assessing the interest, acceptability and usability of social networking to support a primary care patient-centred model for vulnerable older adults. <i>Ontario Health Science Centre (AHSC) Alternative Funding Plan (AFP) Innovation Fund.</i>	Dec 2012 – May 2014	\$30,000
J. Friedlan, A. Hogue, and B. Kapralos. Interactive accounting game and evaluation engine -- Stage 2. <i>Ontario Partnership for Innovation and Commercialization, Proof of Principle Fund Stage 2.</i>	Jul 2012 – Jun 2013	\$25,000
N. Randall, A. Arya, C. Joslin, D. Wershler, J. Carette, C. Milburn, B. Kapralos, K. Collins, C. Dimarco, G. Graffam, M. Hancock, K. Harrigan, F. S. Lian, S. Scott. IMMERSe: The interactive & multi-modal experience research syndicate. <i>Social Sciences and Humanities Research Council of Canada (SSHRC) Partnership Grants.</i>	May 2012 – Apr 2018	\$2,549,960

Curriculum Vitae

B. Kapralos et al. Multimodal interactive interfaces for table-top computers in collaborative e-Learning environments. <i>2012 Cooperative Research Project, Research Institute of Electronics (RIE), Shizuoka University, Hamamatsu, Japan.</i>	May 2012 – Apr 2013	\$11,000
A. Hogue, B. Murphy, B. Kapralos. Development of a serious game to promote safer lifting techniques in the fire service. <i>Workplace Safety and Insurance Board Solutions for Workplace Change.</i>	Dec 2011 – Dec 2012	\$29,978
B. Murphy, S. Passmore, A. Hogue, B. Kapralos, J. Triano, S. Mior, T. McLellan, and A. Dubrowski. Serious games to decrease injury in the fire service by training safer movement patterns and decision making skills: Development and piloting. <i>Workers Compensation Board of Manitoba, Research and Workplace Innovation Program.</i>	May 2012 – May 2014	\$199,167
J. Friedlan, A. Hogue, and B. Kapralos. Interactive accounting game and evaluation engine. <i>Ontario Partnership for Innovation and Commercialization, Proof of Principle Fund.</i>	July 2011	\$10,000
S. Cristancho, B. Kiaii, A. Dubrowski, F. Moussa, and B. Kapralos. Usability testing of virtual and physical simulation resources for training off-pump coronary artery bypass surgery. <i>J. P. Bickell Foundation.</i>	May 2011 – Apr 2012	\$28,820
K. Collins, A. Hogue, B. Kapralos, N. Randall, S. Stacey. Exploring interactivity and immersion with multi-platform games. <i>Social Sciences and Humanities Research Council of Canada (SSHRC), Standard Research Grants.</i>	Apr 2011 – Mar 2014	\$157,650
B. Kapralos (with industrial partner Enviroquest Inc.). Incidence response serious game. <i>Federal Economic Development Agency for Southern Ontario (FedDev Ontario).</i>	Apr 2011 – Mar 2012	\$50,000
B. Kapralos, K. Collins, A. Hogue, and M. Green. <i>Interactive games Ontario 3D (iGO3D). Ontario Centres of Excellence, Industry Academia Collaboration Program Technical Problem Solving (TPS).</i>	Apr 2011-Oct 2012	\$24,975
Hogue, B. Kapralos, K. Collins, M. Owen, M. Green, R. Allison, W. Stuerzlinger, S. Mataija, and M. Katchabaw. <i>Interactive games Ontario 3D (iGO3D). Ontario Media Development Corporation, Entertainment & Creative Cluster Partnership Funds.</i>	Apr 2011-Oct 2012	\$260,000
A. Hogue, B. Kapralos, and J. Friedlan. An interactive case-study simulation engine framework for business and accounting education. <i>Ontario Centres of Excellence, Industry Academia Collaboration Program Technical Problem Solving (TPS).</i>	Oct 2010-Jun 2011	\$25,000
K. Collins, B. Kapralos, A. Hogue, and J-M. Trivi. Experimenting with distributed audio applications on mobile phones. <i>Google Faculty Research Award.</i>	Jul 2010–Jul 2011	\$47,000
A. Hogue, J. Friedlan, and B. Kapralos. Development of an interactive accounting game. <i>Certified General Accountants of Ontario (CGAO).</i>	Jun 2010–Jun 2011	\$66,500
A. Dubrowski, J. Pirie, B. Kapralos, L. Grierson, and H. Carnahan. Testing the effectiveness of an Internet mediated, video based, educational networking instrument in preparing trainees for simulation-based teaching of fundamental technical skills: A randomized control study. <i>The Royal College of Physicians and Surgeons of Canada.</i>	Apr 2010–Apr 2011	\$23,882
H. Taki, H. Nonaka, J. Vassileva, M. Jenkin, M. Todorova, K. Collins, B. Kapralos, A. Hogue, S. Sakai, H. Inokawa, and K. Kanev. Multimedia interaction interfaces in collaborative e-Learning environments. <i>Cooperative Research Project at Research Institute of Electronics (RIE), Shizuoka University, Japan.</i>	Mar 2010–Mar 2011	\$12,000
C. Conati, J. Jensen, R. Biddle, E. Lank, L. Hughes, A. Antle, B. Kapralos, and R. Wakkary. Digital games for learning and training. A project in the \$23M <i>Networks of Centres of Excellence, Graphics Animation and New Media Network (GRAND)</i> research project.	Jan 2010–Dec 2015	\$90,000 to B.Kapralos
B. Kapralos, A. Dubrowski, M. Hogan, C. Mallette, A. Hogue, W. Shi, S. Goldsworthy. Development of a virtual learning environment for interprofessional education in critical care. <i>Inukshuk Wireless Content Development Projects.</i>	Nov 2009 – Aug 2011	\$132,727
K. Collins, and B. Kapralos. Sound on smart tables: An pilot study of methods in sonic interaction design. <i>Social Sciences and Humanities Research Council of Canada, Research Development Initiative.</i>	Jul 2009 – Jul 2011	\$37,162
M. Jenkin, L. Harris, R. Herpers, R. Allison, and B. Kapralos. The perception of self-motion in virtual environments. <i>Alexander von Humboldt Foundation (Transcoop Program, Canada-Germany).</i>	Jul 2009 – Jul 2012	\$54,967 EUR

Curriculum Vitae

B. Kapralos. Streaming knowledge, sharing, and advanced interfaces. <i>IBM Center for Advanced Studies (CAS) Faculty Award</i> .	Jun 2009 – Jun 2010	\$10,000
N. Matsuda, T. Hirashima, J. Vassileva, B. Kapralos, K. Collins, M. Yoneya, K. Kanev, and H. Inokawa. Multimedia interaction interfaces in collaborative e-Learning environments. <i>Cooperative Research Project, Research Institute of Electronics, Shizuoka University, Japan</i> .	Mar 2009 – Mar 2010	\$11,962
B. Kapralos, M. Hogan, B. Muirhead, and A. Dubrowski. Interactive community simulation environment for public health curriculums. <i>Social Sciences and Humanities Research Council of Canada (SSHRC) Image, Text, Sound, and Technology (ITST)</i> .	Feb 2009 – Feb 2010	\$47,404
A. Dubrowski, M. Barry, H. Carnahan, B. Kapralos, J. MacDonald-Jenkins, D. Rose, O. Safir, and D. Backstein. Effectiveness of an internet mediated, networked learning instrument in simulation based training of clinical tasks. <i>The Network of Excellence in Simulation for Clinical Teaching and Learning, Innovations and Evaluation Projects</i> .	Feb 2009-Feb 2010	\$37,128
B. Kapralos. Computational acoustics for virtual environments. <i>National Science and Engineering Research Council (NSERC) Discovery Grant</i> .	May 2008 – Apr 2013	\$79,500

Past and Current Research Grants and Funding (Internal (UOIT) Funding Sources)

Description	Year	Amount
B. Kapralos. A gamified educational network to foster collaborative learning. <i>UOIT Teaching Innovation Fund</i> .	Apr 2015 – Mar 2016	\$8,000
M. DiGiuseppe, R. Simpson, and B. Kapralos. A serious game for phlebotomy training. <i>UOIT Teaching Innovation Fund</i> .	Apr 2015 – Mar 2016	\$8,000
L. Nacke, B. Kapralos, and A. Hogue. <i>Tele-Doolio</i> : A gamified online to-do list system for project-based teaching and learning. <i>UOIT Teaching Innovation Fund</i> .	Apr 2013 – Mar 2014	\$7,460
A. Hogue, B. Kapralos, and N. Nacke. Interactive learning objects for linear algebra and physics. <i>UOIT Teaching Innovation Fund</i> .	Apr 2012 – Mar 2013	\$6,993
B. Kapralos, A. Hogue, and W. Shi. WildMagic+: A high-quality industry-standard open-source game engine framework. <i>UOIT Teaching Innovation Fund</i> .	Apr 2009-Mar 2010	\$7,100
Hogue, B. Kapralos, and W. Shi. Generalized framework for interactive learning objects with application to linear algebra and physics. <i>UOIT Teaching Innovation Fund</i> .	Apr 2009-Mar 2010	\$7,100
M. Vargas-Martin, and B. Kapralos. Using sonification to enhance teaching and learning of network intrusion detection. <i>UOIT Teaching Innovation Fund</i> .	Apr 2009-Mar 2010	\$7,100
B. Kapralos, and M. Hogan. Interactive community simulation environment for public health curriculums. <i>UOIT Teaching Innovation Fund</i> .	Apr 2008-Mar 2009	\$7,000
A. Hogue, B. Kapralos, and J. Friedlan. Interactive simulation environment for accounting education. <i>UOIT Teaching Innovation Fund</i> .	Apr 2008-Mar 2009	\$7,000

PUBLICATIONS (Names in bold denote students, underlined names denote post-doctoral fellows)

Citation Conventions: I always place students before me in any authored work even if they have not contributed to the writing of the paper. I strictly follow this approach even if I have taken the leading role in writing of the paper. Generally, a publication where my name appears after students denotes work that I have led even if I am not the last author (non-student authors will appear after me).

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65. **M. Tawadrous**, S. Kevan, B. Kapralos, and A. Hogue. A serious game for incidence response education and training. *Eighth International Conference on Technology, Knowledge, and Society*. Los Angeles, CA., USA, January 16-18, 2012.
66. K. Collins and B. Kapralos. Multichannel sound on a horizontal surface. *Living Stereo: History, Culture, Multichannel Sound*. Ottawa, Canada, March 9-11, 2011.
67. **B. Cullen**, K. Collins, A. Hogue, and B. Kapralos. The effects of multi-channel audio on the perception of stereoscopic 3D. *Living Stereo: History, Culture, Multichannel Sound*. Ottawa, Canada, March 9-11, 2011.
68. S. Cristancho, F. Moussa, A. Monclou, B. Kapralos, A. Figueredo, and A. Dubrowski. Fostering simulation-based surgical training in developing countries: A pilot study. *Association in Medical Education in Europe (AMEE)*. Vienna, Austria, August 27-28, 2011.
69. **B. Cowan, H. Sabri**, B. Kapralos, F. Moussa, S. Cristancho, and A. Dubrowski. Serious Games: 2D vs 3D? *11th Annual International Meeting on Simulation in Healthcare*. New Orleans, LA., USA, January 21-26, 2011.
70. L. E. M. Grierson, M. Barry, Y. Hui, S. Meng, B. Kapralos, H. Carnahan, and A. Dubrowski. A health professions' education application of collaborative internet environments: Video-based observational practice and educational networking, *11th Annual International Meeting on Simulation in Healthcare*. New Orleans, LA., USA, January 21-26, 2011.
71. T. Pierce, A. Hogue, and B. Kapralos. Getting serious about knowledge and learning in Second Life: Moving intercultural business communication beyond 'bow, kiss, & shake'. *Building Bridges: 96th National Communication Association National Convention*. San Francisco, CA., USA, November 17, 2010.
72. B. Kapralos, S. Cristancho, M. Porte, D. Backstein, A. Monclou, and A. Dubrowski. Serious games in the classroom: Gauging student perceptions. *The Richard K. Reznick Wilson Centre Research Day 2010*. Toronto, Canada, October 22, 2010.
73. **H. Sabri, B. Cowan**, B. Kapralos, M. Porte, D. Backstein, S. Cristancho, and A. Dubrowski. A serious game for total knee arthroplasty procedure education and training. *The Richard K. Reznick Wilson Centre Research Day 2010*. Toronto, Canada, October 22, 2010.
74. **B. Cowan, H. Sabri**, B. Kapralos, F. Moussa, S. Cristancho, and A. Dubrowski. A serious game for off-pump coronary artery bypass surgery procedure training. *The Richard K. Reznick Wilson Centre Research Day 2010*. Toronto, Canada, October 22, 2010.
75. L. E. M. Grierson, M. Barry, H. Carnahan, B. Kapralos, and A. Dubrowski. Effectiveness of an internet mediated educational networking instrument in the simulation-based training of clinical tasks. *The Royal College 2010 Simulation Summit*. Toronto, Ontario, September 27-29, 2010.
76. A. Dubrowski, B. Kapralos, S. Cristancho, A. Kotsakis, E. Ng, J. Pirie, S. Reeves, M. Barwick, B. Fleming-Carroll, A. Cheng, G. Bird, D. Quintero, A. Monclou, and A. Hogue. Interactive serious game simulation for critical care response team education. *3rd International Paediatric Simulation Symposium and Workshops (IPSSW) 2010*. Madrid, Spain, September 29-30, 2010.

77. L. R. Harris, R. Herpers, M. Jenkin, R. Allison, H. Jenkin, B. Kapralos, D. Scherfgen, and S. Boronas. The perception of linear self motion induced by a virtual reality display while viewing eccentrically. *11th International Multisensory Research Forum*. Liverpool, UK, June 16-19, 2010.
78. B. Kapralos, M. Hogan, K. Finney, and A. Dubrowski. Modular synthetic training research evaluation and extrapolation tool (mSTREET). *2nd Annual HETRU Conference on What really Works: Strategies to Improve Teaching and Learning*. Oshawa, Canada, November 21-22, 2009.
79. M. Hogan, B. Kapralos, B. Muirhead, and A. Dubrowski. Community health nursing comes to life. *Third Annual Conference of the Canadian Game Studies Association*. Ottawa, Canada, May 23-24, 2009.
80. M. Hogan, B. Kapralos, B. Muirhead, and A. Dubrowski. Bringing community health nursing education to life. *Health Professionals Education (HPE)—Global Best Practices in Simulation 2009*. Toronto, Ontario, Canada, May 21-23, 2009.
81. M. Hogan, and B. Kapralos. The use of simulations in community health nursing curriculums. *26th Annual International Nursing Computer and Technology Conference*. Las Vegas, NV, USA. June 4-7, 2008.
82. M. Hogan, and B. Kapralos. Simulations in community health nursing. *2nd National Community Health Nurses Conference*. Toronto, Ontario, Canada, May 29-31, 2008.
83. B. Kapralos, and M. Hogan. Serious games: an overview. *2008 Canadian Conference on Medical Education*. Montreal, Quebec, Canada, May 3-7, 2008.
84. M. Hogan, **H. Sabri, S. Khattak**, and B. Kapralos. Interactive simulation for community health education and training. *Health Education Technology Research Unit (HETRU) Official Launch*. Oshawa, Ontario, Canada, April 7 2008.
85. B. Kapralos, M. Jenkin, E. Milios, and J. Tsotsos. Eyes 'n ears sound localization. In *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP) 2001*. Salt Lake City, UT, USA, May 7-11, 2001.
86. B. Kapralos, M. Jenkin, E. Milios, and J. Tsotsos. Eyes 'n ears: A system for attentive teleconferencing. In *Proceedings of the 39th Meeting of the Acoustical Society of America*. Atlanta, Georgia USA, May 30-June 3, 2000. Appears in *Journal of the Acoustical Society of America*, 107(5):2790, 2000.

Keynote and Invited Presentations (given by Bill Kapralos; names in bold denote students)

1. A. Torres, A. Jagannathan, S. Abdo, B. Kapralos, and A. Dubrowski. From immersion to precision: Integrating XR, AI, and makerspace technologies into clinical skills training. *2026 Ontario Students Medical Education Research Conference (OSMERC)*, Toronto, Ontario, Canada, January 18, 2025. **Invited workshop presenter.**
2. Dubrowski, and B. Kapralos, S. DeSousa, and E. Wilson. AI, microlearning, and emerging technologies for precision education. A workshop held at the *13th annual Sunnybrook Education Conference*, Toronto, Ontario, Canada, November 21, 2025. **Invited workshop presenter.**
3. B. Kapralos. Immersive virtual learning environments: Open problems and future directions. *Sunnybrook Health Sciences Centre, Sunnybrook Hub for Applied Research in Education (SHARE), Simulation Research Rounds*, May 7, 2025, Toronto, Canada. **Invited Presentation.**
4. B. Kapralos. Designing immersive applications for medical education. *BN4701 Serious Games for Health, Department of Biomedical Engineering, National University of Singapore*, October 15, 2024. **Invited Guest Lecture.**
5. B. Kapralos. Immersive and emerging technologies for history, culture, and archeology. *Culture and Sustainable Development Seminar, Pan Messinian Kalamata University Program*, July 20, 2024, Koroni, Greece. **Invited Presentation.**
6. B. Kapralos. Immersive virtual learning environments for medical education: State-of-art, and open problems. *The Fifteenth International Conference on Information, Intelligence, Systems and Applications (IISA 2024)*, July 17-19, 2024, Chania, Crete. **Invited Keynote Presentation.**
7. B. Kapralos. Immersive technologies for medical education. *25th Symposium on Virtual and Augmented Reality (SVR 2023)*, November 6-9, 2023, Rio Grande, Brazil. **Invited Keynote presentation.**
8. B. Kapralos. Designing immersive applications for medical education. *BN4701 Serious Games for Health, Department of Biomedical Engineering, National University of Singapore*, September 13, 2023. **Invited Guest Lecture.**
9. E. Hava Peisachovich, B. Kapralos, C. Culver, and G. Hollaender. VR/XR Based Training & Education. *Knowledge and Experience Sharing Speaker Series*, York University, Toronto, Canada, April 28, 2023. **Invited Presentation.**
10. B. Kapralos. Immersive Technologies for knowledge and skills training for those caring for people with dementia. *Age Friendly University Speaker Series, Ontario Tech University*, Oshawa, Canada, September 14, 2022. **Invited presentation.**
11. B. Kapralos. Designing immersive applications for medical education. *BN4701 Serious Games for Health, Department of Biomedical Engineering, National University of Singapore*, September 13, 2022 (Virtual). **Invited Guest Lecture.**
12. B. Kapralos. Immersive technologies and intelligent avatars for medical education. *15th International KES Conference on Human-Centered Intelligent Systems (KES-HCIS-22)*, Rhodes, Greece, June 20-22, 2022. **Invited Keynote Presentation.**
13. B. Kapralos. Immersive technologies for medical education. *SingHealth MEDSG 200*, Singapore, September 15, 2021 (Virtual). **Invited Presentation.**

14. B. Kapralos. Designing immersive technologies for medical education. BN7101 Serious Games for Health, *Department of Biomedical Engineering, National University of Singapore*, Singapore, September 14, 2021 (Virtual). **Invited Guest Lecture.**
15. B. Kapralos. Virtual simulation and serious gaming in medical education: Fidelity and multimodal interactions. *Simulation Interoperability Standards Organization (SISO) Exploration of Next Generation Technology Applications to Modeling and Simulation (M&S) (ENGTAM) Standing Study Group*, August 3, 2021 (Virtual). **Invited presentation.**
16. A. Dubrowski, B. Kapralos, D. Campbell, R. Brydges, S. Krishnan, and E. Peter. *Moral Injury and Digital Interventions (MIDI) Symposium Panel*. June 21, 2021 (Virtual). **Invited Panelist.**
17. B. Kapralos. Immersive technology for medical education. *International Community Research on Medical Simulation Webinar Series*. May 27, 2021. **Invited presentation.**
18. B. Kapralos. Immersive technologies and medical education. Computer Simulation & Gaming Conference (CSGC), Virtual Conference, April 16, 2021.
19. B. Kapralos. The gamified educational network learning management system to facilitate engaging cooperative remote learning. *KES International COVID-19 Challenge: A Transition to a more Resilient World - International Virtual Summit*, March 29, 2021. **Invited keynote presentation.**
20. B. Kapralos. Immersive technologies for medical education. *Society of Obstetrics and Gynecologists of Canada's Ontario CME*. December 5, 2020. Toronto, Ontario, Canada (virtual). **Invited plenary presentation.**
21. B. Kapralos. Virtual and augmented reality. *Japanese-Canadian Frontiers of Science Symposium*. March 1-4, 2020, Banff, Alberta, Canada. **Invited presentation.**
22. B. Kapralos. Immersive technologies and multimodal interactions in biomedical engineering and augmented medical simulations and training. *The 5th International Symposium toward the Future of Advanced Researches*, March 6, 2019, Shizuoka, Japan.
23. B. Kapralos. Embracing the future of immersive technologies for medical education. *IEEE SMC Victorian Chapter*, October 22, 2018, Waurn Ponds, Australia. **Invited presentation.**
24. B. Kapralos. Serious Games in Higher Ed: A View from the Trenches Panel at the *Serious Play Conference 2018*, July 18, 2018, Buffalo, USA. **Invited panelist.**
25. B. Kapralos. Embracing the future of immersive technologies for medical education. *Serious Play Conference 2018*, July 18, 2018, Buffalo, USA. **Invited presentation.**
26. B. Kapralos. Embracing the future of immersive technologies for medical education. *1st Canadian Realities in Medicine Conference*, April 7-8, 2018, Toronto, Canada. **Invited presentation.**
27. B. Kapralos. Computer 101 – the basics: Introduction to computers and networks, hardware and software, the Internet and the cloud. *2018 Science in the Courtroom: The Web, Nets & Bots – Everything You Need to Know About Emerging Technologies, National Judicial Institute Science Program*, March 14-16, 2018, Toronto, Canada. **Invited presentation.**
28. B. Kapralos. Immersive technologies, serious gaming, and gamification for medical education. *Lakeridge Health Research and Innovation Rounds*, February 28, 2017, Oshawa, Canada. **Invited Presentation.**
29. B. Kapralos. Immersive technologies, serious gaming, and gamification for medical education. *Best Practice in Education Rounds (BPER), Centre for Faculty Development, Li Ka Shing International Healthcare Education Centre, University of Toronto, and St. Michael's Hospital*, Jan. 30, 2018, Toronto, Canada. **Invited presentation.**
30. B. Kapralos. Immersive technologies, gamification and serious games for healthcare education. *2017 Ontario Healthcare Simulation Network (SIM-one) SIM Expo*. Nov. 30 – Dec. 1, 2017, Toronto, Canada. **Invited keynote presentation.**
31. B. Kapralos. Immersive technologies for medical education, health, and well-being. *Entertainment Software Association of Canada (ESAC), Beyond Entertainment Conference*, October 23, 2017, Ottawa, Canada. **Invited presentation.**
32. B. Kapralos. Immersive technologies for medical education. April 20, 2017. School of Computer Science, Lincoln University, Philadelphia, PA, USA. **Invited presentation.**
33. B. Kapralos. Serious gaming and immersive technologies for medical education. *Seminario Internacional - Práctica en Terapia de Aceptación y Compromiso (ACT)*, February, 23, 2017. Universidad Pontificia Bolivariana Bucaramanga, Colombia. **Invited presentation.**
34. B. Kapralos. Serious gaming and immersive technologies for medical education. February, 20, 2017. *Universidad Militar Nueva Granada*, Bogota, Colombia. **Invited presentation.**
35. B. Kapralos. Serious gaming and immersive technologies for medical education. *IEEE International Conference on Interactive Mobile Communication, Technologies and Learning*, San Diego, CA, USA, October, 17-19, 2016. **Invited keynote presentation.**
36. B. Kapralos. Virtual simulation and serious gaming: fidelity and multimodal interactions. *2nd Workshop on Engineering in Medical Applications*, September 14-15, 2016, Bogota Colombia. **Invited Presentation.**

37. B. Kapralos. Serious games for medical education and training. *Games Institute Brown Bag Seminar Series*, University of Waterloo, Waterloo, Canada, March 24, 2016. **Invited presentation.**
38. B. Kapralos. An overview of game sound. *10th Audiovisual Arts Festival*, Corfu, Greece, May 17, 2016. **Invited (hands-on) tutorial.**
39. B. Kapralos. Video games and serious games: Analytics and big data. Big data across the disciplines: Modernizing the curriculum and enhancing the scholarship. Part of a panel/roundtable discussion at the *Spring Semester Faculty & Staff Professional Development Day Events*, State University of New York (Fredonia) Fredonia. February 5, 2016. **Invited participant.**
40. B. Kapralos. The application of virtual simulation, serious gaming, and virtual reality-based technologies for anatomy education and training. *Department of Anatomy and Cell Biology Weekly Seminar Series*, Schulich School of Medicine and Dentistry, University of Western Ontario, London, Canada, October 2, 2015. **Invited presentation.**
41. B. Kapralos. The influence and importance of sound and music in virtual learning environments. *1ο Πανελλήνιο Συνέδριο Καλλιτεχνικής Παιδείας*. Patra, Greece, June 18, 2015. **Invited keynote presentation.**
42. B. Kapralos. Serious gaming and gamification, for medical-based education and training: Overview, existing work, and open problems. *1st Workshop on Engineering in Medical Applications*, Bogota, Colombia, June 5, 2015. **Invited Presentation.**
43. B. Kapralos. Gamification and serious games for health professions education and health care. *GRAND Digital Health / E-Health Forum*, Vancouver, Canada, November 24, 2014. **Invited presentation.**
44. B. Kapralos. Serious games in education and health. Universidad La Araucana, Santiago, Chile, November 12, 2014. **Invited presentation.**
45. B. Kapralos, and B. Cowan. A “hands-on” introduction to serious games, and (virtual) simulation for health professions education. *3rd Annual Sunnybrook Education Conference: Technology-Enhanced Learning*, Toronto, Canada, October 17, 2014. **Invited presentation.**
46. B. Kapralos. Gaming, gamification, and serious games. Faculty of Engineering, The Nueva Granada Military University, Bogota, Colombia, September 18, 2014. **Invited Presentation.**
47. B. Kapralos. Serious games for medical education. Faculty of Medicine, The Nueva Granada Military University, Bogota, Colombia, September 16, 2014. **Invited Presentation.**
48. B. Kapralos. Serious games for health professions education. *University of Toronto, Educational Information Technology Summer Student Award Program*. St. Michael's Hospital, Toronto, Canada, August 27. **Invited presentation.**
49. B. Kapralos. Serious games and virtual simulations: Customizing the audio-visual interface. *Well-Being, Rehabilitation, and Healthcare: Serious Games, Alternative Realities, and Play Therapy* Parallel Session at the *6th International Conference on Virtual, Augmented and Mixed Reality, HCI International 2014*, Crete, Greece, June 22-27, 2014. **Invited paper and presentation.**
50. B. Kapralos. An overview. Presentation given to the AboutKidsHealth group at the Hospital for Sick Children, Toronto, Canada, Tuesday, March 4, 2014. **Invited presentation.**
51. B. Kapralos. Virtual simulation and serious gaming: Audio-visual interactions, perceptual-based rendering, and the implications. *The 16th International Conference on Humans and Computers (HC-2013)*, December 17, 2013, Hamamatsu, Japan. **Invited presentation.**
52. R. Shewaga, and B. Kapralos. Z-DOC: A serious game for Z-plasty procedure training. *Ontario Simulation Expo 2013*, Toronto, Canada, December 5-6, 2013. **Invited presentation and demo.**
53. B. Kapralos. Game on: Gaming in medical education. *The 2nd Annual Sunnybrook Education Conference: Digital Learning*, Toronto, Canada, October 10, 2013. **Invited presentation.**
54. B. Kapralos. Serious games for health professionals education. *GRAND NCE Workshop: Innovation, Entrepreneurship and Digital Media Jobs Creation*. Edmonton, Canada, August 12, 2013. **Invited presentation.**
55. B. Kapralos. Multi-modal interactions, perceptual-based rendering and the implications for virtual environments and serious games. *2013 International Conference on Multimedia and Human-Computer Interaction (MHCI'13)*, Toronto, Canada, July 18-20, 2013. **Invited keynote presentation.**
56. B. Kapralos. Audio-visual interactions and perceptual-based rendering in virtual environments and games. *Audiovisual Arts Festival 2013: Art and Interculturalism in the Mediterranean*. Corfu, Greece, June 20-30, 2013. **Invited presentation.**
57. B. Kapralos. Gaming, gamification, and serious games for law education. “Gamifying Your Law Firm” panel, *Third Annual lawTechcamp* Toronto, Canada, June 8, 2013. **Invited presentation/panelist.**
58. B. Kapralos. Serious games and virtual simulation for health education. “Research in Health Education Apps and Technology” panel, *Apps for Health and Education 2013*, Hamilton, Canada, May 16, 2013. **Invited presentation/panelist.**

59. B. Kapralos. Gaming, gamification, and serious games. "Gamification Deep Dive" panel, *Apps for Health and Education 2013*, Hamilton, Canada, May 16, 2013. **Invited presentation/panelist.**
60. **B. Cowan, D. Rojas**, B. Kapralos, K. Collins, and A. Dubrowski. Spatial sound and its effect on visual quality perception and task performance within a virtual environment. *Proceedings of the 21st International Congress on Acoustics*, June 2-7, 2013, Montreal, Canada. **Invited presentation.**
61. B. Kapralos. Game-based learning, serious games, and computer science. *13th Conference of the Association for Computer Studies Educators (ACSE) 2012*, Toronto, Ontario, Canada, November 24, 2012. **Invited presentation.**
62. B. Kapralos. Serious games for surgical education and training. *macGRID Simulation Research Network Workshop 2012*. Hamilton, Ontario, Canada, November 7-8, 2012. **Invited presentation.**
63. B. Kapralos. Serious games for surgery education and training. *Symposium on the Advances in Simulation-Based Surgical Education*. Bucaramanga, Colombia, July 27-28, 2012. **Invited presentation.**
64. B. Kapralos, and A. Dubrowski. The use of virtual learning environments to augment and extend simulation-based health professional's education. *Healthcare Simulation Conference and Networking Event: Simulation and Technology for Improved HealthCare and Education*. Toronto, Canada, March 2, 2012. **Invited presentation.**
65. B. Kapralos. iGO3D - exploring 3D gaming technology. *X-Summit*, Toronto, Ontario, Canada, October 24-26, 2011. **Invited presentation.**
66. B. Kapralos. An overview of serious games and game-based learning. *Seminario Internacional de Ingenieria Electronica, Universidad Pontificia Bolivariana–Bucaramanga*. Bucaramanga, Colombia, September 22, 2011. **Invited presentation.**
67. B. Kapralos. The S-3D gaming experience. *16th Conference on Animation, Effects, Games and Interactive Media (FMX 2011)*, Stuttgart, Germany, May 3-6, 2011. **Invited presentation.**
68. B. Kapralos. Game-based learning and serious games: Serious opportunities. *Education Technology Strategies for Universities, Colleges, and K-12 Schools*. Toronto, Ontario, Canada, March 2-3, 2011. **Invited presentation.**
69. B. Kapralos. Serious games. *Simulation Institute and Strategic Networking Day*. Toronto, Ontario, Canada, November 19-20, 2010. **Invited presentation.**
70. B. Kapralos. Serious games + computer science. *Association for Computer Studies Educators (ACSE) 2010 Conference*. Toronto, Ontario, Canada, October 30, 2010. **Invited presentation.**
71. B. Kapralos. Serious games for interprofessional education for critical care response teams. *Group Awareness in Online Work, Learning, and Games Workshop at HCI 2010*. Abertay, Dundee, Scotland, September 7, 2010. **Invited keynote speaker.**
72. B. Kapralos. Serious games = serious opportunities. *Seminario Internacional de Ingenieria Electronica, Universidad Pontificia Bolivariana–Bucaramanga*. Bucaramanga, Colombia, April 30, 2010. **Invited presentation.**
73. B. Kapralos, A. Hogue, A. Kopinska, and **S. Khattak**. The interaction of visual and auditory cues to linear self-motion perception. *10th Western Pacific Acoustics Conference. Special Session on Sound Technologies for Multimodal Communication*. Beijing, China. September 21-23, 2009. **Invited presentation.**
74. B. Kapralos. Self-motion perception with changing sound source intensity. *CIRMMT Workshop on Multimodal Influences on Perceived Self-Motion*. Montreal, Quebec, Canada, February 4, 2008. **Invited presentation.**
75. B. Kapralos, M. Jenkin, and E. Milios. Acoustical modeling with sonel mapping. *19th International Congress on Acoustics (ICA 2007)*. Madrid, Spain, September 2-7, 2007. **Invited presentation.**

Other Presentations (Presented by Bill Kapralos)

1. B. Kapralos. Immersive technologies and serious gaming for medical education and training. *School of Electrical & Computer Engineering, Technical University of Crete*, Chania, Greece, May 30, 2017.
2. B. Kapralos. Serious gaming, virtual simulation, and immersive technologies for history, culture, and archeology education and training. *Guest Lecture: New Technologies for Cultural Heritage* (a core course for all students in History and Archaeology program, 4th year), University of Peloponnese, Kalamata, December 6, 2016.
3. B. Kapralos and **A. Uribe**. Serious gaming for medical education: Overview, multi-modal interactions, and open problems. *NSERC CREATE Collaborative Learning in Usability Experiences (CLUE) Seminar Series*, Carleton University, Ottawa, Canada, April 27, 2016.
4. B. Kapralos. Serious games for surgical education. Department of Computer Science, Ryerson University, Toronto, Canada, October 24, 2013.
5. B. Kapralos. The efficient approximation of acoustical diffraction using the GPU. Electrical and Computing Engineering Department, University of Patras, Greece, October 4, 2012.
6. B. Kapralos. Serious games for knee replacement surgery procedure education and training. *Health Education Technology Research Unit (HETRU) Rounds*. Oshawa, Ontario, Canada, March 11, 2010.
7. **B. Cowan** and B. Kapralos. Real-time spatial sound for virtual environments and games utilizing the GPU. Queens University, Kingston, Ontario, Canada, January 22, 2009.

8. Participant at the *Ontario Video Game Roundtable Meeting* with the Honorable Minister of Economic Development and Trade, Sandra Pupatello. Toronto, Canada, September 10, 2008.
9. M. Hogan and B. Kapralos. Interactive simulation for community health education and training. *Health Education Technology Research Unit (HETRU) Rounds*. Oshawa, Canada, Mar. 13, 2008.

Miscellaneous Publications and Technical Reports (Non-Refereed)

1. F. Hamidi, and B. Kapralos. A review of spatial sound for virtual environments and games with graphics processing units. *The Open Virtual Reality Journal*, 1(1):8–17, 2009.
2. B. Kapralos, M. Jenkin, and E. Milios. The sonel mapping acoustical modeling method. Department of Computer Science and Engineering, York University, Toronto, Ontario, Canada. *Technical Report. CS-2006-10*, September, 2006.
3. B. Kapralos, D. Zikovitz, M. Jenkin, and L. R. Harris. Auditory cues in the perception of self-motion for linear translation. Department of Computer Science and Engineering, York University, Toronto, Ontario, Canada. *Technical Report. CS-2004-04*, November, 2004.
4. B. Kapralos, M. Jenkin, and E. Milios. Audio-visual localization of multiple speakers in a video teleconferencing setting. Department of Computer Science and Engineering, York University, Toronto, Ontario, Canada. *Technical Report CS-2002-02*, July 2002.

Published Reviews in ACM Computing Reviews

1. Completed a summary and a review of the following paper (December 5, 2008): K. Bormann. Visuals are not what they look, *Virtual Reality* 12(2): 115-123, 2008.

SCHOLARLY AND PROFESSIONAL ACADEMIC ACTIVITIES

- Conference Chairing and Organizing Committees

Name	Dates
Workshop Co-Chair: <i>3D Reconstruction, Digital Twinning, and Simulation for Virtual Experiences (ReDigiTS)</i> . A workshop at IEEE VR 2025, Saint Malo, France.	mar 9, 2025
Conference Co-Chair (Technical Program Committee): <i>IEEE CTSoc Gaming, Entertainment and Media (GEM) 2024</i> . Turin, Italy.	Jun 5-7, 2024
Workshop Co-Chair: <i>3rd IEEE VR 2024 Workshop on 3D Reconstruction, Digital Twinning, and Simulation for Virtual Experiences</i> . A workshop at IEEE VR 2024, Orlando, FL, USA.	Mar 17, 2024
Workshop Co-Chair: <i>2nd IEEE VR 2023 Workshop on 3D Reconstruction, Digital Twinning, and Simulation for Virtual Experiences</i> . A workshop at IEEE VR 2023, Shanghai, China.	Mar 25, 2023
Workshop Co-Chair: <i>IEEE VR 2024 Workshop on 3D reconstruction, digital twinning, and simulation for virtual experiences</i> . A workshop at IEEE VR 2022. Virtual Workshop.	Mar 12-13, 2022
Workshop Chair: <i>2018 International Workshop on Immersive Technologies and Serious Gaming for Health Professions Education</i> – held in conjunction with the <i>IEEE 9th International Conference on Information, Intelligence, Systems and Application</i> .	Jul 23-25, 2018
Conference Co-Chair: <i>IEEE Games, Entertainment, and Media Conference (GEM) 2015</i> . Toronto, Ontario, Canada.	Oct 14-16, 2015
Workshop Chair: <i>2015 International Workshop on Serious Gaming = Serious Business</i> . Hamamatsu, Japan.	Mar 5, 2015
Organizing Committee (Virtual Sim/Gaming/Tech. Session): <i>Ontario Simulation network (Sim-One) Simulation Exposition</i> . Toronto, Canada.	Dec 4-5, 2014
Conference Chair: <i>IEEE Games, Entertainment, and Media Conference (GEM) 2014</i> . Toronto, Ontario, Canada.	Oct 22-24, 2014
Workshop Co-Chair: <i>International Workshop on Collaboration and Gaming (CoGames 2013)</i> . As part of the <i>2013 IEEE International Conference on Collaboration Technologies and Systems (CTS 2013)</i> . San Diego, CA, USA.	May 20-24, 2013
Conference Co-Chair: <i>The 18th ACM Symposium on Virtual Reality Software and Technology</i> . Toronto, Ontario, Canada.	Dec 10-12, 2012
Workshop Chair: <i>10th International Conference on Entertainment Computing</i> in 2011. Vancouver, British Columbia, Canada	Oct 5-8, 2011
Conference Chair: <i>ACM FuturePlay @ GDC 2010</i> . Vancouver, British Columbia, Canada.	May 6-7, 2010

Organizing Committee: <i>Health Education Technology Research Unit (HETRU) and McGraw-Hill Ryerson 2nd Annual Conference: What Really Works: Strategies to Improve Teaching and Learning.</i> Oshawa, Canada	Nov 21-22, 2009
Conference Chair: <i>ACM FuturePlay @ GDC 2009.</i> Vancouver, British Columbia, Canada	May 12-13, 2009
Conference Chair: <i>ACM FuturePlay 2008 International Conference on the Future of Game Design and Technology.</i> Toronto, Ontario, Canada	Nov 3-5, 2008
Workshop Organizing Committee: <i>CIRMMT Workshop on Multimodal Influences on Perceived Self-Motion.</i> Montreal, Quebec, Canada	Feb 4, 2008
Conference Chair: <i>ACM FuturePlay 2007 International Conference on the Future of Game Design and Technology.</i> Toronto, Ontario, Canada	Nov 15-17, 2007

- Panel/Tutorial Participation/Organization

Name and Description	Dates
B. Kapralos, A. Dubrowski, and F. Haji. An introduction to serious games, and (virtual) simulation for health professions education. Organized and led this tutorial at the <i>Medicine Meets Virtual Reality 2013</i> , San Diego, USA.	Feb 20-23, 2013
E. Stroulia, M. Galetanu, P. Pacholski, K. Lyons, P. Messinger, B. Kapralos, M. Seif El-Nasr, and J. Connolly. Virtual worlds for modeling complex processes between people and systems. Tutorial participant at <i>IBM CASCON 2010</i> , Canada.	Nov 2, 2010
B. Kapralos, J. Tahsiro, M. Hogan, K. Finney, A. Dubrowski. Serious games: video game-based learning for health education and training. Tutorial participant <i>Health Professionals Education (HPE) – Global Best Practices in Simulation 2009</i> . Toronto, Canada	May 21-23, 2009
A. Dubrowski, B. Kapralos, and M. Hogan. Blogs, podcasts and serious games: What should educators know about the learning needs of their students? Tutorial participant <i>Health Professionals Education (HPE) – Global Best Practices in Simulation 2009</i> . Toronto, Canada	May 21-23, 2009
K. Collins and B. Kapralos. Panel: An overview of interactive audio: Where are we currently and where are we heading? Organized and participated in this tutorial <i>Digital Kung-Fu: Interactive Workshop at the Centre for Digital Media</i> . Vancouver, Canada	May 14 2009
A. Dubrowski, J. Tashiro, K. Finney, and B. Kapralos. Games for health education. Organized and led this tutorial <i>FuturePlay @ GDC Canada 2009</i> . Vancouver, Canada	May 12-13, 2009
K. Collins, B. Kapralos, D. Kerr, and L. Paul. Panel: Game audio education: Adding audio to your game courses, and games to your audio courses. Organized and led this tutorial at <i>FuturePlay @ GDC Canada 2009</i> .	May 12-13, 2009
L. J. Gunter, G. Sinclair, S. Engels, and B. Kapralos. Ontario's got talent. Tutorial participant at <i>GameON Finance</i> . Toronto, Canada	Oct 28-29, 2008

- IEEE Consumer Technology Society

- o Vice Chair: Human-Machine Interaction and User Experience (HMI) Technical Committee.

- Consulting

- o Ontario Ministry of Economic Development and Trade. Completed two "Technical Due Diligence" reports for two separate *Strategic Jobs and Investment Fund* invited (applications. March 2011, and May 2011.

- Grant Reviewer

- o Mitacs Accelerate
- o Greek Diaspora Fellowship Program (GDFP)
- o Ontario Ministry of Economic Development and Trade, Strategic Jobs, Investment Fund
- o Ontario Centres of Excellence
- o Natural Sciences and Engineering Research Council of Canada (NSERC)
- o United States National Science Foundation\\

- Journal Guest Editor

- o F. Bellotti, B. Kapralos, K. Lee, and P. Moren-Ger. *Advances in Human-Computer Interaction, Special Issue on User Assessment in Serious Games and Technology-Enhanced Learning*, 2013.
- o J. Jenson, N. Bojin, and B. Kapralos. *Loading... Special issue: FuturePlay Selected Papers*, Vol 3, No 5 (2009).

- **Journal Reviewer**

- IEEE Transactions on Games
- The Cureus Journal of Medical Science
- IEEE Transactions on Vehicular Technologies
- IEEE Transactions on Learning
- IEEE Transactions Human-Machine Systems
- IEEE Consumer Electronics Magazine
- International Journal of Medical Informatics
- Health Informatics Journal
- Virtual Reality
- ACM Computers in Entertainment
- Journal of Ambient Intelligence and Smart Environments
- Computers in Human Behavior
- Cognitive Processing
- Entertainment Computing
- Computers & Graphics
- The International Journal of Technology, Knowledge & Society
- IEEE Transactions on Information Technology in BioMedicine
- International Journal of Human-Computer Studies
- IEEE Transactions on Instrumentations and Measurement
- Ageing International
- Institution of Engineering and Technology Computer Vision
- Transactions on Haptics
- Motor Control
- ACM Transactions on Applied Perception
- Journal of Autonomous Robots
- International Journal of Computer Games Technology
- Journal of the Acoustical Society of America
- Journal of Image and Vision Computing
- Journal of Sound and Vibration

- **Media-Related**

- Click Magazine. Interview, December 2011, “UOIT: Developing Developers”.
- Science Media Centre of Canada. Member. March 2011-present.
- Gadget Girlz TV Series. Interview, Fall 2010.

- **Committees**

- Program Advisory Committee (PAC): Humber College, Faculty of Applied Sciences and Technology (FAST), Electronics Engineering Technician/Technology Program Advisory Committee (Jan 2018 – present)
- Program Development Advisory Committee (PDAC) for Algoma University’s Bachelor of Computer Games Technology Degree Program. February 2010-August 2010.

Student Supervision

Current Graduate & Post-Doctoral Student Supervision

Name	Start Date	Thesis Title
Nour Halabi (PhD)	Sep. 2025	
Sabine Jamaledine (DEd)	Sep. 2025	
Sandy Abdo (PhD, Ontario Graduate Scholarship recipient)	Sep. 2023	
Cole Craven (PhD)	Jan. 2023	
Thomas Gaudi (PhD)	Jan 2020	

Past Research Associate Supervision

Name	Start Date	End Date	Project
Hamed Sabri	Jan 2011	Dec 2012	Serious games and 3D modeling

Curriculum Vitae

Derek Fullerton (co-supervisor)	Jul 2010	May 2011	Development of a serious game for accounting education and training
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Past Graduate and Post-Doctoral Student Supervision

Name	Start Date	End Date	Thesis Title
Andrei Bosco Bezerra Torres (PhD , Ontario Trillium Scholarship recipient)		Mar. 2025	The Moirai serious game authoring platform and the gamified educational network
Quinn Daggett (MSc)	Jan. 2021	Dec. 2024	A serious game to teach adolescents about the dangers of vaping
Claire Culver (MSc)	Sep. 201	Aug. 2024	
Bill Ko (MSc) co-supervisor	Sep. 2021	Nov. 2023	investigating the potential of low-cost, consumer-level VR technology for medical simulation and training through laparoscopy simulation
Sandy Abdo (MSc)	Sep. 2021	Aug. 2023	Examining the effects of embodiment on performance and learning of drilling actions using pseudo-haptics and standard computer equipment
Robert Savaglio (MSc)	Sep. 2019	Apr. 2023	Palatable game development: Lessons learned from Foodbot Factory, accessibility, and audio games
Guoxuan Ning (MSc)	Sep 2018	Jan. 2021	Simulating a drilling task using audio, video, and simple kinesthetic Cues
Michael Chan (MSc) co-supervisor	Sep 2017	Apr 2020	Development and comparison of augmented and virtual reality interactions for direct ophthalmoscopy
Brent Cowan (PhD , NSERC CGS, A. Graham Bell Canada Graduate Scholarship recipient)	Sep 2012	Dec 2019	A graph-based real-time spatial sound framework
Thomas Gaudi (MSc)	Sep 2015	Dec 2019	Serious game framework to allow for the development of serious games for autism treatment
Jonathan Umar-Khitab (MSc), co-supervisor	Sep 2017	Dec 2019	Investigation on emotional memories and our perception of them over time
Kyle Wilcocks (MSc)	May 2017	Aug 2019	Anesthesia crisis scenario builder: The development of an anesthesia crisis scenario builder for virtual reality training
Mirza Beig (MSc)	Sep 2015	May 2018	Scalable immersive audio for virtual environments
Mohammed Melaisi (MSc)	Sep 2015	Dec 2018	Multimodal (audio-haptic) interactions
Fredderico Filho (MSc) co-supervisor	Jan 2017	Dec 2018	Board game accessibility for persons with visual impairment
Robert Shewaga (NSERC PGS Scholarship recipient) (MSc)	Sep 2015	Jan 2017	A comparison of seated and room-scale virtual reality on medical-based serious games and virtual simulation
Alvaro Uribe Quevedo (Post-Doctoral Fellow)	Sep 2015	Sep 2016	Serious games for medical education and multimodal interactions
Zain Khan (MSc)	Jan 2014	Dec. 2015	A serious game for cultural competence education and training.
Mina Tawadrous (MSc)	Sep 2011	Aug 2013	A serious game for incidence response training.
Brent Cowan (MSc , NSERC PGS M Scholarship recipient)	Sep 2010	Aug 2012	A serious game for total knee arthroplasty (procedure) education
David Rojas Gauldron (MSc)	Sep 2010	Aug 2012	Audio and visual fidelity

Curriculum Vitae

Jonathan Lam (MSc)	Sep 2009	Aug 2012	Auditory interaction techniques for a smart-table computer
Chris Zerebecki (MSc) co-supervisor	Sep 2011	Jan 2014	Stereoscopic 3D gaming
Brian Cullen (Post-Doctoral Fellow) co-supervisor	May 2011	Jul 2012	Multi-modal stereoscopic 3D

International Visiting Students (Internships)

Name	Start Date	End Date	Thesis Title
Virginia Ermondi (MSc). Programma Di Mobilita Verso Paesi Extra-UE/NON ERASMUS+ recipient (Italy)	Feb. 2025	Jul. 2025	Intelligent tutors for a virtual simulation: Comparing the ChatGPT and Rasa frameworks
Alessandro Visconti (PhD). Programma Di Mobilita Verso Paesi Extra-UE/NON ERASMUS+ recipient (Italy)	Jan. 2025	Jul. 2025	
Elizabeth Storer (MSc). Programma Di Mobilita Verso Paesi Extra-UE/NON ERASMUS+ recipient (Italy)	Aug. 2024	Nov. 2024	ChatGPT-based virtual assistant for virtual reality-based medical training
Sante Leara Riitano (MSc). Programma Di Mobilita Verso Paesi Extra-UE/NON ERASMUS+ recipient (Italy)	Mar 2024	Jul 2024	Markerless video tracking for medical education
Agazio Riitano (MSc). Programma Di Mobilita Verso Paesi Extra-UE/NON ERASMUS+ recipient (Italy)	Mar 2023	Jul 2023	Development of an intraosseous access serious game.
Fabiola Stancati (MSc). Programma Di Mobilita Verso Paesi Extra-UE/NON ERASMUS+ recipient (Italy)	Mar 2023	Jul 2023	Development of a chatbot (intelligent tutor) for an intraosseous access serious game.
Saverio Cieneri (MSc) Programma Di Mobilita Verso Paesi Extra-UE/NON ERASMUS+ recipient (Italy)	Oct 2018	Feb 2019	Intelligent virtual avatars for virtual simulations
Ana Karen Espinosa Becerra (Ugrad), Mitacs Gloalink Research Internship Award (mexico)	May 2018	Aug 2018	Emotion and mood modeling for virtual simulations and serious games
David Acosta Laverde (Ugrad) Emerging Leaders in the Americas Program (ELAP) Scholarship recipient (Colombia)	Sep 2017	Jan 2018	Virtual eye fundus and cardiac auscultation training tool development
Luca Micelli (MSc) Programma Di Mobilita Verso Paesi Extra-UE/NON ERASMUS+ recipient (Italy)	Sep 2017	Jan 2018	Multimodal interactions
David Leonardo Acosta Laverde (MSc) Emerging Leaders in the Americas Program (ELAP) Scholarship recipient (Colombia)	Sep 2017	Jan 2018	Development of a virtual reality-based app for eye fundus examination
Sergio Prada Barrios (Ugrad) Emerging Leaders in the Americas Program (ELAP) Scholarship recipient (Colombia)	Sep 2015	Jan 2017	Development of a virtual reality-based app for cardiac auscultation education
Jemar Greaves (MSc) Emerging Leaders in the Americas Program (ELAP) Scholarship recipient (Barbados)	Jan 2017	Apr 2017	Development of more believable virtual agents (characters)
Michael Mayers (MSc) Emerging Leaders in the Americas Program (ELAP) Scholarship recipient (Barbados)	Jan 2017	Apr 2017	Development of more believable virtual agents (characters)
Shamar Kellman (MSc) Emerging Leaders in the Americas Program (ELAP) Scholarship recipient	Jan 2016	May 2016	Development of more believable virtual agents (characters)

(Barbados)			
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Undergraduate Supervision

Undergraduate Student Supervision

Student	Start date	End Date	
Zachary O'Brien	May 2024	Aug 2024	Virtual simulations and serious games
Akshat Gupta (NSERC USRA recipient)	May 2023	Aug 2023	Virtual simulations and serious games
Quinn Daggett (NSERC USRA recipient)	May 2020	Aug 2020	Development of a serious game to teach kids about the dangers of vaping
Joss-Moo Young (NSERC USRA recipient)	May 2018	Aug 2018	Development of a virtual haptic-based epidural simulator
Robert Savaglio (NSERC USRA recipient)	May 2017	Aug 2017	Apps for child-based nutritional education
Graham Watson	May 2018	Aug. 2018	Apps for child-based nutritional education
Joss Moo-Young	May 2018	Aug 2018	Immersive technologies for medical education

TEACHING

- **Graduate Courses**
 - CSCI 5010: Survey of Computer Science Research Topics & Methods (Fall 2025, Fall 2023)
 - CSCI 6520G: Advanced Topics in Digital Media (Virtual Learning Environments, and Imm. Tech) (Winter 2025, Winter 2023)
 - CSCI 5550: Auditory Perception and Virtual Audio (Fall 2018)
 - CSCI 5550: Topics in Digital Media: Immersive Technologies (Fall 2017).
 - CSCI 5530: Serious Game Development (Winter 2012, Fall 2013, 2014, 2015)
 - CSCI 5500: Auditory Perception and Virtual Audio (Fall 2010)
 - CSE 6002: Directed Reading: Auditory Perception and Virtual Audio (Fall 2008). York University, Department of Engineering and Computer Science.
- **Undergraduate Courses (UOIT)**
 - INFR 4370: Advanced Game Sound (Winter 2025)
 - INFR 3335: Social and Multiplayer Game Design (Fall 2020)
 - INFR 4400: Special Topics: Immersive Technologies (Fall 2017, Fall 2020)
 - INFR 4400: Special Topics: Gamification (Winter 2017)
 - INFR 1100: Introduction to Programming (Fall 2014)
 - INFR 4391: Special Topics: Serious Games and Simulation (Fall 2025, Fall 2024, Fall 2023, Fall 2021, Fall 2019, Winter 2012, Fall 2013, Winter 2015, 2016)
 - INFR 4350: Virtual Reality and User Interaction (Fall 2008, 2009, 2010).
 - INFR 2350: Intermediate Computer Graphics (Winter 2007, 2008, 2009, 2010, 2011).
 - INFR 2370: Game Sound (Each Winter semester from 2006 – 2021, Fall 2023, Fall 2024).
 - INFR 1350: Introduction to Computer Graphics (Fall 2006, 2007, 2008, 2009, 2010).
 - INFR 2810: Computer Architecture (Winter 2018-2022, Summer 2020-2021, Fall 2007, 2008, 2011, Winter 2014 – 2016).
- **Undergraduate Courses (UOIT, Faculty of Education)**
 - AEDT 4120: Serious Gaming and Simulations (Online course; Winter 2013, 2015, 2016).
- **Undergraduate Courses (York University, Dept. of Engineering and Computer Science)**
 - CSE 1020: Introduction to Computer Science I (Summer 2006).
 - CSE 1030: Introduction to Computer Science II (Summer 2006).
 - CSE 3301: Programming Language Fundamentals (Summer 2006).
 - CSE 1530: Computer Use II: Programming (Winter 2006).
 - COSC 2011: Fundamentals of Data Structures (Winter 2001).

- **Undergraduate Courses (University of Toronto, Dept. of Computer Science)**
 - CSC 320: Introduction to Visual Computing (Summer 2005).
- **Undergraduate Courses (Humber College, School of Applied Technology)**
 - ELIC 629: Digital Image Processing (Winter 2005, Fall 2005, Winter 2006).
 - ELIC 413: Introduction to Programming - C Programming (Fall 2005).
- **“Mini” Courses**
 - “Virtual Scenrio Design”. Simulation Canada MicroCourse Series. 2020.
 - “Serious Gaming and Simulation”: component of the e-Xplorers course (an “intensive introduction on the breadth and depth of using e-simulation and e-blended learning for healthcare education”), *Ontario Simulation Network (SIM-One)*, March 4-22, 2013.
 - “Introduction to Sound for Games”. Universidad Pontificia Bolivariana–Bucaramanga, Bucaramanga, Colombia as part of the *Fifth Seminario Internacional de Ingenieria Electronica*. September 19-24, 2011.
 - “Introduction to Computer Graphics with OpenGL”. UPB, Bucaramanga, Colombia. Part of the *Fourth Seminario Internacional de Ingenieria Electronica*, April 2010.
 - “Introduction to Game Sound”. UPB, Bucaramanga, Colombia. Part of the *Seminario Internacional de Ingenieria Electronica*. April 2010.
 - “Broadband Technologies and Multimedia Applications”. Day-long course delivered to managers from Bank of Montreal as part of their Master's Certificate of Information Technology Management (Executive program) delivered by UOIT's Management Development Centre (MDC). April 2007.