

EWEN LAVOIE, PHD



MD Student, University of Calgary

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EDUCATION

University of Calgary

Doctor of Medicine

Ongoing

University of Alberta

Doctor of Philosophy (Kinesiology, Sport, and Recreation / Neuroscience)

2023

Supervisors: Dr. Craig Chapman & Dr. Jacqueline Hebert

Thesis: *Exploring the Impact of Visual and Haptic Feedback on Eye-Hand Coordination and Embodiment in Virtual Reality*

Master of Science (Kinesiology, Sport, and Recreation)

2017

Supervisors: Dr. Craig Chapman & Dr. Jacqueline Hebert

Thesis: *Exploring Normative Eye Movement Patterns in Functional Tasks*

Bachelor of Education

2011

Bachelor of Science (Biology, Minor: Mathematics)

2009

PUBLICATIONS

10. **Lavoie, E.B.**, Hebert, J.S. & Chapman C.S. (2023). Virtually, a little more real: Comparing eye-hand coordination during object interactions in virtual reality with true haptic feedback and no haptic feedback. Manuscript in preparation.
9. **Lavoie, E.B.**, Hebert, J.S. & Chapman C.S. (2023). How real is virtual reality? Comparing eye-hand coordination in virtual reality and real world object interactions. Manuscript in revisions at Journal of Vision, XR Special Issue.
8. **Lavoie, E.B.**, & Chapman C.S. (2021). Whats limbs got to do with it? Real-world movement correlates with feelings of ownership over virtual arms during object interactions in virtual reality. Neuroscience of Consciousness, niaa027. <https://doi.org/10.1093/nc/niaa027>
7. Wispinski, N.J., Stone, S.A., Bertrand, J.K., Ouellette Zuk, A.A., **Lavoie, E.B.**, Gallivan, J.P., & Chapman C.S. (2020). Reaching for known unknowns: Rapid reach decisions accurately reflect the future state of dynamic probabilistic information. Cortex, 138, 253-265. doi: <https://doi.org/10.1016/j.cortex.2021.02.010>
6. Hebert J.S., Boser Q.A., Valevicius A.M., Tanikawa, H., **Lavoie, E.B.**, Vette A.H., Pilarski, P.M., & Chapman C.S. (2019). Quantitative eye gaze and movement differences in visuomotor adaptations to varying task demands among upper-extremity prosthesis users. Journal of the American Medical Association Network Open, 2(9), e1911197-e1911197.
5. Valevicius, A.M., Boser, Q.A., **Lavoie, E.B.**, Chapman, C.S., Pilarski, P.M., Hebert, J.S., & Vette, A.H. (2019). Characterization of normative angular joint kinematics during two functional upper limb tasks. Gait & Posture, 69, 176-186.
4. **Lavoie, E.B.**, Valevicius, A.M., Boser, Q.A., Kovic, O., Vette, A.H., Pilarski, P.M., Hebert, J.S., & Chapman, C.S. (2018). Using synchronized eye and motion tracking to determine high-precision eye movement patterns during object-interaction tasks. Journal of Vision, 18(6):18, 1-20. doi:10.1167/18.6.18

3. **Lavoie, E.B.**, Bertrand, J.K., Stone, S.A., Wispinksi, N.J., Sawalha, J., & Chapman, C.S. (2018). Examining the "species" of situated cognition in humans. *Comparative Cognition & Behavior Reviews*, 13, 31-34. doi: 10.3819/CCBR.2017.120003
2. Valevicius, A.M., Boser, Q.A., **Lavoie, E.B.**, Murgatroyd, G.S., Pilarski, P.M., Chapman, C.S., Vette, A.H. & Hebert, J.S. (2018). Characterization of normative hand movements during two functional upper limb tasks. *PloS one*, 13(6), e0199549.
1. Boser, Q.A., Valevicius, A.M., **Lavoie, E.B.**, Chapman, C.S., Pilarski, P.M., Hebert, J.S., & Vette, A.H. (2018). Cluster-based upper body marker models for three-dimensional kinematic analysis: Comparison with an anatomical model and reliability analysis. *Journal of Biomechanics*, 72, 228-234.

ACADEMIC AWARDS & HONOURS

Health Sciences Interdisciplinary Research Fund Award (\$10,000)	2023
TD Bank Financial Group Grant, College of Health Sciences, University of Alberta	
CAN Travel Award (\$750)	2023
Canadian Association for Neuroscience	
Mary Louise Imrie Graduate Student Award (\$1,500)	2023
Faculty of Graduate Studies and Research, University of Alberta	
Tuition Bursary (\$6,000)	2022
Cumming School of Medicine, University of Calgary	
Andrew Stewart Memorial Graduate Prize (\$5,000)	2021
Faculty of Graduate Studies and Research, University of Alberta	
Nominated by Faculty of Kinesiology for Killam Memorial Scholarship	2021
Faculty of Graduate Studies and Research, University of Alberta	
Entrepreneurship Seed Grant (\$15,000)	2021
Campus Alberta Neuroscience	
Graduate Research Assistant Fellowship (\$1,000)	2021
Faculty of Kinesiology, Sport, and Recreation, University of Alberta	
President's Doctoral Prize of Distinction (\$5,800)	2020
University of Alberta	
Alexander Graham Bell Canada Graduate Scholarship - Doctoral (\$35,000)	2020
Natural Sciences and Engineering Research Council of Canada	
Best Oral Presentation, Neuroscience and Mental Health Research Day (\$200)	2020
Neuroscience Graduate Student Association, University of Alberta	
Nominated by Faculty of Kinesiology for Killam Memorial Scholarship	2020
Faculty of Graduate Studies and Research, University of Alberta	
EPS Study Visit Grant (£3,000)	2020
Experimental Psychology Society	
President's Doctoral Prize of Distinction (\$5,800)	2019
University of Alberta	
NSERC Postgraduate Scholarship - Doctoral (\$42,000)	2018
Natural Sciences and Engineering Research Council of Canada	
President's Doctoral Prize of Distinction (\$10,000)	2018
University of Alberta	
European Space Agency Scholarship (€12,000, declined offer)	2018
International Space University	
Academic Travel Award (\$500)	2017
Graduate Students' Association, University of Alberta	
Doctoral Recruitment Scholarship (\$5,000)	2017

Faculty of Graduate Studies and Research, University of Alberta Graduate Tuition Award (\$2,000)	2017
Faculty of Kinesiology, Sport, and Recreation, University of Alberta Academic Travel Award (\$500)	2017
Graduate Students' Association, University of Alberta Academic Travel Grant (\$500)	2017
Faculty of Kinesiology, Sport, and Recreation, University of Alberta European Space Agency Scholarship (€16,000, declined offer)	2017
International Space University Graduate Student Scholarship (\$3,000)	2017
Government of Alberta Graduate Student Travel Award (\$2,000)	2016
University of Alberta Walter H. Johns Graduate Fellowship (\$5,700)	2016
University of Alberta Alexander Graham Bell Canada Graduate Scholarship - Master's (\$17,500)	2016
Natural Sciences and Engineering Research Council of Canada Best Oral Presentation, ReCon V (\$125)	2015
Faculty of Kinesiology, Sport, and Recreation, University of Alberta First Class Standing	2011
Faculty of Education, University of Alberta Jason Lang Scholarship (\$1000)	2010
Government of Alberta Jason Lang Scholarship (\$1000)	2007
Government of Alberta Jason Lang Scholarship (\$1000)	2006
Government of Alberta Academic All-Canadian	2006
Canadian Inter-University Sport Academic Excellence Scholarship (\$2000)	2005
University of Alberta Alexander Rutherford Scholarship (\$2500)	2005
Government of Alberta	

ADDITIONAL ACADEMIC TRAINING

Neuroscience Entrepreneurship Workshop	2019
Campus Alberta Neuroscience	
Designing Your Future Career Conference	2019
Campus Alberta Neuroscience	
Freedom Week Summer School	2018
Institute for Liberal Studies	

RESEARCH EXPERIENCE

Action in Complex Environments Lab, Kinesiology, Sport, and Recreation, UAlberta	
Graduate Student	September 2015 - Present
Supervisors: Dr. Craig S. Chapman	
Hand Proprioception and Touch Interfaces Project, Defense Advanced Research Projects Agency (DARPA)	

Working Team Member May 2015 - August 2018
Supervisors: Dr. Craig S. Chapman, Dr. Jacqueline S. Hebert, & Dr. Douglas J. Weber

Bionic Limbs for Improved Natural Control Lab, Physical Medicine and Rehabilitation, UAlberta

Research Assistant (Full-time) May 2015 - August 2015
Supervisors: Dr. Jacqueline S. Hebert

Action in Complex Environments Lab, Kinesiology, Sport, and Recreation, UAlberta

Research Assistant (Part-time) January 2015 - April 2015
Supervisor: Dr. Craig S. Chapman

RESEARCH FUNDING

NSERC, Applied Research and Technology Partnership Grant (\$900,000) 2021 - 2023

Co-investigators: **Ewen Lavoie**, David McMurray, & Michael McCready
Title: Authentic Embodied Virtual Reality

Campus Alberta Neuroscience, Entrepreneurship Seed Grant (\$15,000) 2020 - 2021

Co-investigators: **Ewen Lavoie** & Dr. Nathaniel Maeda
Title: Measuring eye-hand coordination in XR for clinical assessment of movement disorders

NSERC, Postgraduate Scholarship - Doctoral (\$78,000) 2018 - 2021

Title: Eye, hand, and brain behaviour during object interaction

NSERC, Alexander Graham Bell Graduate Scholarship - Master's (\$17,500) 2016 - 2017

Title: Establishing normative eye movement patterns in functional tasks

Alberta Gambling Research Institute, Small Grant (\$10,000) 2016 - 2017

Principal Investigator: Dr. Craig S. Chapman
Co-investigators: **Ewen B. Lavoie**, Jennifer Bertrand, & Nathan J. Wispinski
Title: Using custom built board games and video game level editors to measure the impact of theme and medium on risky decision making

CONFERENCE PRESENTATIONS

25. **Lavoie, E.B.** (2023, June). How real is virtual reality? Comparing eye-hand coordination during object interactions in virtual reality and the real world. Talk presented at the Virtual Reality Augmented Reality Association Healthcare Forum, Online.
24. **Lavoie, E.B.**, Hebert, J.S., & Chapman, C.S. (2023, May). How real is virtual reality? Comparing eye-hand coordination between VR and real world object interactions. Poster presented at the Canadian Association for Neuroscience Annual Meeting, Montreal, QC, CAN.
23. **Lavoie, E.B.** (2023, May). How real is virtual reality? Comparing eye-hand coordination during object interactions in virtual reality and the real world. Talk presented at the University of Toronto, Toronto, ON, CAN.
22. **Lavoie, E.B.**, Hebert, J.S., & Chapman, C.S. (2023, March). How real is virtual reality? Comparing eye-hand coordination in virtual reality and real-world object interactions. Talk presented at Neuroscience Research Day 2023, Edmonton, AB, CAN.

21. **Lavoie, E.B.**, & Chapman, C.S. (2022, November). How real is VR? Predicting training proficiency using eye and body movements in real and virtual environments. Poster presented at the Canadian Space Health Research Symposium, Calgary, AB, CAN.
20. **Lavoie, E.B.**, & Chapman, C.S. (2021, June). Comparing eye-hand coordination during object interactions in real and virtual worlds. Talk presented at VISTA-CVR: Virtual Vision Futures, Toronto, ON, CAN.
19. **Lavoie, E.B.**, & Chapman, C.S. (2021, March). You can't hide your lyin' eyes: Comparing eye-hand coordination during object interactions in real and virtual worlds. Talk presented at the Neuroscience and Mental Health Research Day, Edmonton, AB, CAN.
18. **Lavoie, E.B.**, & Chapman, C.S. (2020, October). How real is virtual reality? Visual limb representation and haptic feedback impact eye and body movements, and feelings of embodiment during object interactions in real and virtual worlds. Poster presented at the UNSW Workshop on Expectation, Perception & Cognition, Sydney, AUS.
17. **Lavoie, E.B.**, & Chapman, C.S. (2020, March). What's limbs got to do with it? Limb visualization in VR changes movement behaviour and feelings of embodiment during object interactions. Talk presented at the Neuroscience and Mental Health Research Day, Edmonton, AB, CAN. **Awarded Best Oral Presentation.**
16. **Lavoie, E.B.**, Motley, G., & Chapman, C.S. (2019, June). No end-state comfort in sight? Using virtual reality to measure how different visualizations of one's body changes eye and hand movements during an object interaction task. Poster presented at the Association for the Scientific Study of Consciousness Annual Meeting, London, ON, CAN.
15. Boser, Q.A., Dawson, T.R., **Lavoie, E.B.**, Pilarski, P.M., Vette, A.H., Chapman, C.S., & Hebert, J.S. (2019, June). Characterizing the eye gaze behaviour of body-powered prosthesis users. Poster presented at the International Society for Prosthetics and Orthotics Canada Rehab Week 2019, Toronto, ON, CAN.
14. **Lavoie, E.B.**, Stone, S.A., Hebert, J.S., & Chapman, C.S. (2018, November). Eye and body movements during object interactions in real and virtual worlds. Poster presented at the Society for Neuroscience Annual Meeting, San Diego, CA, USA.
13. Hebert, J.S., Chapman, C.S., Vette, A.H., Pilarski, P.M., Boser, Q.A., Valevicius, A.M., & **Lavoie, E.B.** (2018, May). A quantitative gaze and movement assessment for advanced upper limb prostheses. Talk presented at the 2nd International Symposium on Innovations in Amputation Surgery and Prosthetic Technologies, Vienna, Austria.
12. **Lavoie, E.B.**, Valevicius, A.M., Boser, Q.A., Pilarski, P.M., Vette, A.H., Hebert, J.S., & Chapman, C.S. (2017, November). Establishing normative eye movement patterns in functional tasks. Poster presented at the Psychonomic Society Annual Meeting, Vancouver, BC, CAN.
11. Hebert, J.S., **Lavoie, E.B.**, Boser, Q.A., Valevicius, A.M., Vette, A.H., Pilarski, P.M., & Chapman, C.S. (2017, August). 3D-Gaze and Movement: A novel metric of visual attention to measure upper limb prosthetic function. Talk presented at the Myoelectric Controls Symposium (MEC), Fredericton, NB, CAN.
10. Valevicius, A.M., Boser, Q.A., **Lavoie, E.B.**, Chapman, C.S., Pilarski, P.M., Vette, A.H., & Hebert, J.S. (2017, August). Kinematic insights from a novel gaze and movement metric for upper limb function: Normative and prosthetic comparison. Poster presented at the Myoelectric Controls Symposium (MEC), Fredericton, NB, CAN.
9. **Lavoie, E.B.**, Valevicius, A.M., Boser, Q.A., Luu, M.J., Dawson, T.R., Kovic, O., Pilarski, P.M.,

- Vette, A.H., Hebert, J.S., & Chapman, C.S. (2017, May). Exploring normative and upper-limb prosthetic user eye movement patterns during functional object movement tasks. Poster presented at the Banff Annual Seminar in Cognitive Science (BASICS), Banff, AB, CAN.
8. Chapman, C.S., Davis, C.M., Bertrand, J.K., **Lavoie, E.B.**, Sawalha, J., & Wispinski, N.J. (2017, April). Feasibility of using custom built board games and video-game level editors to measure the impact of theme and medium on risky decision making. Poster presented at the Alberta Gambling Research Institute Conference (AGRI), Banff, AB, CAN.
 7. **Lavoie, E.B.**, Crockett, E.A., Kovic, O., Valevicius, A.M., Boser, Q.A., Pilarski, P.M., Vette, A.H., Hebert, J.S., & Chapman, C.S. (2016, November). Establishing normative eye movement patterns during upper-limb functional tasks. Poster presented at Society for Neuroscience (SfN), San Diego, CA, USA.
 6. Chapman, C.S., Ho, S., Sawalha, J., Gilani, I., **Lavoie, E.B.**, Wispinski, N.J., & Bertrand, J.K. (2016, November). Using rapid reaching to explore the value of information. Poster presented at Society for Neuroscience (SfN), San Diego, CA, USA.
 5. **Lavoie, E.B.**, Crockett, E.A., Kovic, O., Valevicius, A.M., Boser, Q.A., Pilarski, P.M., Vette, A.H., Hebert, J.S., & Chapman, C.S. (2016, November). Comparing normative to prosthetic user eye movement patterns during upper-limb functional tasks. Talk presented at P-PACT Inaugural Meeting, Prairie - Perception, Action, Cognition Team, Canmore, AB, CAN.
 4. **Lavoie, E.B.**, Crockett, E.A., Kovic, O., Valevicius, A.M., Boser, Q.A., Pilarski, P.M., Vette, A.H., Hebert, J.S., & Chapman, C.S. (2016, October). Establishing normative eye movement patterns in upper-limb functional tasks. Poster presented at The Neuroscience Innovation for Improving Brain Health Symposium 2016, Campus Alberta Neuroscience, Edmonton, AB, CAN.
 3. **Lavoie, E.B.**, Crockett, E.A., Kovic, O., Valevicius, A.M., Boser, Q.A., Pilarski, P.M., Vette, A.H., Hebert, J.S., & Chapman, C.S. (2016, October). Establishing normative eye movement patterns in upper-limb functional tasks. Poster presented at The Spotlight on Research Breakfast, Glenrose Rehabilitation Hospital, Edmonton, AB, CAN.
 2. Valevicius, A.M., Boser, Q.A., **Lavoie, E.B.**, Vette, A.H., Chapman, C.S., Pilarski, P.M., & Hebert, J.S. (2016, August). Normative Kinematic Data for Two Functional Upper Limb Tasks. Poster presented at The 40th Annual Meeting of the American Society of Biomechanics, Raleigh, NC, USA.
 1. Boser, Q.A., Valevicius, A.M., **Lavoie, E.B.**, Chapman, C.S., Pilarski, P.M., Hebert, J.S., & Vette, A.H. (2016, August). Comparison of Anatomical And Cluster-Based Upper Body Marker Models. Poster presented at The 40th Annual Meeting of the American Society of Biomechanics, Raleigh, NC, USA.

NON-REFEREED CONFERENCE PRESENTATIONS

* indicates undergraduate student supervisee

12. **Lavoie, E.B.** (2021, November). Exploring Health Sciences Career Paths and Trajectories. Talk presented at Discovery Day in Health Sciences, Canadian Medical Hall of Fame and the University of Calgary.
11. **Lavoie, E.B.** (2020, October). The New Reality of Virtual Reality Sex Platforms. Invited Talk and Panel Discussion presented at the Zombie Apocalypse Medicine Meeting 2020, Virtually through Arizona State University.

10. **Lavoie, E.B.** (2020, July). How Real Is Virtual? Comparing behaviour during object interactions in real and virtual worlds. Talk presented to the SMART Network at the University of Alberta.
9. **Lavoie, E.B.** (2019, June). Evidence for Embodied Cognition. Talk presented to KIN 206: Biomechanics at the University of Alberta.
8. **Lavoie, E.B.** (2019, May). Consciousness, Compassion, Worth, Well-being, and Ambition in Coaching. Talk presented to PAC 110: Instruction of the Basics of Aquatics at the University of Alberta.
7. **Lavoie, E.B.** (2016, December). Society for Neuroscience Recap: Experiences and Highlights. Talk presented at University of Alberta Sensorimotor Rehabilitation Neuroscience Group Meeting, Edmonton, AB, Canada.
6. **Lavoie, E.B.** (2016, October). Motor Learning in Competitive Swimming. Talk presented to PAC 110: Instruction of the Basics of Aquatics at the University of Alberta.
5. **Lavoie, E.B.**, Crockett, E.A., Kovic, O., Valevicius, A.M., Boser, Q.A., Pilarski, P.M., Vette, A.H., Hebert, J.S., & Chapman, C. S. (2016, September). Establishing normative eye-movement patterns in functional tasks. Talk presented at University of Alberta ReCon, Canmore, AB, Canada.
4. **Lavoie, E.B.**, Crockett, E.A., Valevicius, A.M., Boser, Q.A., Kovic, O., Samji, S., Pilarski, P.M., Vette, A.H., Hebert, J.S., & Chapman, C. S. (2016, April). Using eye-tracking as a method for evaluating functional tasks to improve upper-limb prostheses. Talk presented at University of Alberta Sensorimotor Rehabilitation Neuroscience Group Meeting, Edmonton, AB, Canada.
3. *Kovic, O., **Lavoie, E.B.**, Valevicius, A.M., Boser, Q.A., Crockett, E.A., Hoehn, B., Mathewson, K.W., Pilarski, P.M., Vette, A.H., Hebert, J.S., & Chapman, C. S. (2016, March). Making better prostheses: A new, superior evaluation system. Poster presented at the Undergraduate Research Revealed Poster Symposium, University of Alberta, Edmonton, AB, Canada.
2. *Kovic, O., **Lavoie, E.B.**, Valevicius, A.M., Boser, Q.A., Crockett, E.A., Hoehn, B., Mathewson, K.W., Pilarski, P.M., Vette, A.H., Hebert, J.S., & Chapman, C. S. (2016, March). Making better prostheses: A new, superior evaluation system. Poster presented at the Festival of Undergraduate Research and Creative Activities Conference, University of Alberta, Edmonton, AB, Canada.
1. **Lavoie, E.B.**, Crockett, E.A., Valevicius, A.M., Boser, Q.A., Hoehn, B., Carpenter, S., Pilarski, P.M., Vette, A.H., Hebert, J.S., & Chapman, C. S. (2015, September). Using eye tracking and 3D motion capture to establish normative data sets for functional tasks. Talk presented at University of Alberta ReCon, Canmore, AB, Canada. **Awarded Best Oral Presentation.**

CONFERENCE WORKSHOPS

1. Hebert, J.S., **Lavoie, E.B.**, Boser, Q.A., & Valevicius, A.M. (2017, August). Novel outcome measures for advanced bidirectional upper limb prosthesis control and feedback. Workshop presented as a Pre-Conference Event of the Myoelectric Controls Symposium (MEC), Fredericton, NB, CAN.

ENTREPRENEURSHIP

Scientific Advisor

Lenica Research Group, digital health start-up company

ACADEMIC SERVICE

Reviewer

Biomedical Engineering/Biomedizinische Technik (1)

Ad Hoc Reviewer

Computer Methods and Programs in Biomedicine (1)

Quarterly Journal of Experimental Psychology (1)

Animal Cognition (1)

Journal of Cognitive Neuroscience (1)

PLOS One (1)

Canadian Journal of Experimental Psychology (1)

Frontiers in Human Neuroscience (1)

Member

IEEE Global Initiative on the Ethics of Extended Reality Collaboration

Heterodox Academy

Heterodox Academy Canada Symposium Committee

POPULAR SCIENCE PUBLICATIONS

1. **Lavoie, E.B.** (2020). We Should Worry About Virtual Reality Sex. Published online for Real Clear Science.

TECHNICAL STRENGTHS & EXPERIENCE

Computer Languages & Software

Unity, C#, HTC Vive, Microsoft Suite, Matlab, R, Python, Vicon, Optitrack, Pupil Labs

Experimental Techniques

Motion Tracking, Eye Tracking, Virtual Reality, Electromyography, Electroencephalography, Transcranial Magnetic Stimulation, Transcutaneous Spinal Cord Stimulation, Transcutaneous Electrical Nerve Stimulation, Galvanic Skin Response

TEACHING EXPERIENCE

Post-Secondary Primary Instruction

Faculty of Kinesiology, Sport, and Recreation, University of Alberta

Co-Instructor, Applied Ethics in Physical Education and Sport, KIN 401 2020

Co-Instructor, Human Motor Control, KIN 302 2020

Primary Instructor, Instruction of the Basics of Aquatics, PAC 110 2016 - 2018

Post-Secondary Teaching Assistantships

Faculty of Kinesiology, Sport, and Recreation, University of Alberta

Applied Ethics in Physical Education and Sport, KIN 401 2017 - 2021

Conceptual Approach to Physical Activity, KIN 294 2019

Assessment and Evaluation in Physical Activity for Children and Youth, PERLS 371 2016

Undergraduate Student Project Supervision

Faculty of Kinesiology, Sport, and Recreation, University of Alberta

4 Undergraduate Research Assistants 2016 - 2020

Secondary Teaching

Edmonton Public Schools	
Lillian Osborne High School, Temporary, Full-time, Biology and Science	2019
Harry Ainlay High School, Temporary, Full-time, International Baccalaureate, Biology	2014
S. Bruce Smith Junior High School, Temporary, Full-time, Mathematics	2012
St. Albert Public Schools	
Supply Teacher	2011 - 2015
Elmer S. Gish School, Student Teacher	2011
Greater St. Albert Catholic Schools	
Richard S. Fowler Catholic Junior High School, Student Teacher	2010

VOLUNTEER SERVICE

Director-at-Large , Golden Bears and Pandas Swimming Alumni Society	
University of Alberta	2013 - Present
Activity Coordinator , Pediatric Rehabilitation Unit	
Glenrose Rehabilitation Hospital, Alberta Health Services	2015 - 2021
Vice President, Executive , Brain Waves Program	
Parachute Injury Prevention, School of Public Health, University of Alberta	2017 - 2021
Neuroscience Presenter , Brain Waves Program	
Parachute Injury Prevention, School of Public Health, University of Alberta	2016 - 2021
Interviewee , U School, University of Alberta Senate	2016 - 2021
Coach , Steadward Bears Paraswimming Program	
The Steadward Centre for Personal and Physical Achievement, University of Alberta	2015 - 2018
Coach , Pilot Para-Athletics Program	
The Steadward Centre for Personal and Physical Achievement, University of Alberta	2016 - 2017
Activity Coordinator , Fort McMurray Sports Day	
Faculty of Kinesiology, Sport, and Recreation, University of Alberta	2016
Neurophysiology Presenter , U School, University of Alberta Senate	2015
Mentor , Wheelie Fun Camp	
Glenrose Rehabilitation Hospital, Alberta Health Services	2015
Aquatic Activity Coordinator , Specialized Pediatric Rehabilitation Outpatient Program	
Glenrose Rehabilitation Hospital, Alberta Health Services	2015
Gift Deliverer , Santa's Anonymous Edmonton	2013
Director , Olympian Distance Challenge for Diabetes Research, Olympian Swim Club	2013
Coach , Edmonton Keyano Swim Club	2007
Aquatic Activity Coordinator , Adult Rehabilitation Program	
Glenrose Rehabilitation Hospital, Alberta Health Services	2006 - 2007
Coaching Assistant , Olympian Swim Club Rookie Camps	2001 - 2003
Official , Numerous Local Swim Meets	2000 - 2006

COACHING EXPERIENCE

Assistant Coach , Golden Bears and Pandas Varsity Swim Teams	
University of Alberta	2013 - 2015, 2019 - 2020
Head Coach , Age Group Performance	
Olympian Swim Club	2012 - 2013
Head Coach , Fountain Park Pool	
Olympian Swim Club	2010 - 2012
Assistant Coach , Summer Swim Camps	
University of Alberta	2010
Head Coach , Scona Pool	
Olympian Swim Club	2009 - 2010

Head Coach , Summer Swim Camps University of Alberta	2009
Assistant Coach , Edmonton HUMA Swim Club	2007 - 2009
Assistant Coach , Olympian Swim Club	2008
Assistant Coach , Summer Swim Camps University of Alberta	2006 - 2008
Assistant Coach , Stony Plain Sharks Swim Club	2006
Swim Instructor , Grand Trunk Fitness and Leisure Centre	2006

COACHING ACHIEVEMENTS

University of Alberta Varsity Swim Team

1 athlete qualified for FINA World Junior Swimming Championships to represent Canada	2015
Best Men's and Women's Combined Team Placing (5th) at Canadian Inter-university Swimming Championships in over 10 years	2015
First Men's Team Gold Medal at Canadian Inter-university Swimming Championships in 18 years (400 Medley Relay)	2015
Multiple individual medals won at Canadian Inter-university Swimming Championships	2015
1 athlete qualified for the Pan Pacific Swimming Championships to represent Canada	2014
Multiple individual medals won at Canadian Inter-university Swimming Championships	2014
7 University of Alberta Swimming Records broken	2014

Olympian Swim Club

Multiple medals won at Canadian Age Group Championships	2013
3 athletes qualified for Canadian Age Group Championships	2013
Men's and Women's Teams won Western Canadian Championships	2013
5 out of 8 eligible athletes selected to Swim Alberta Development Camp	2013
Several medalists at the Alberta Age Group Championships	2013
10 out of 10 eligible athletes achieved Alberta Age Group Championships qualifying time	2013
Women's Team won Western Canadian Championships	2012
10 and Under Girls 200 Freestyle Relay Provincial Champions	2012
10 and Under Girls 200 Medley Relay Provincial Champions	2012
7 athletes achieved Alberta Age Group Championships qualifying time	2012

Edmonton HUMA Summer Swim Club

Alberta Summer Swimming Association Provincial Champions	2009
Selected as Coach of Alberta Summer Swimming Association All Star Team	2009
Alberta Summer Swimming Association Provincial Champions	2008
Selected as Coach of Alberta Summer Swimming Association All Star Team	2008
Selected as Coach of Alberta Summer Swimming Association All Star Team	2007

ELITE ATHLETICS

Various Ultimate Frisbee Teams	2013 - Present
Various Soccer Teams	1992 - Present
Edmonton Masters Swim Club	2015 - 2017
University of Alberta Varsity Swim Team	2005-2006
Olympian Swim Club	1997-2005
Kinsmen Youth Triathlon Club	2003-2004

ADDITIONAL CERTIFICATIONS AND INTERESTS

Mental Health First Aid Certification

Mental Health Commission of Canada

Teaching Certification

Alberta Teaching Certificate

Coaching Certification

National Coaching Certification Program - Competition Coach Trained

Lifesaving Qualifications

Bronze Medallion, Bronze Cross, Water Safety Instructor, Standard First Aid and CPR

Hobbies

Hiking, Camping, Landscape and Wildlife Photography, Board Games, Improv Comedy, Cycling

Sport Participation

Soccer, Ultimate Frisbee, Disc Golf, Swimming, Squash, Badminton, Hockey, Powerlifting