Jay Henderson Curriculum Vitae

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Nationality: Canadian

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Current Position

Assistant Professor
Department of Computer Science
Memorial University of Newfoundland

Overview

My research interests span a variety of domains within human-computer interaction, including, learning input techniques, augmented/mixed/virtual reality, and 2D/3D interaction – with the overarching goal of understanding human behaviour while interacting with emerging technology. My fundamental computer science background paired with interdisciplinary training in psychology and mathematics has placed me in a unique position to make meaningful contributions to the field; evident through my numerous publications at top-tier venues.

Education

2021	PhD in Computer Science Thesis: Understanding Mode and Modality Transfer in Unistroke Gesture Input *University of Waterloo*
2016	BSc Hons in Computer Science (minors in Mathematics and Psychology) *Mount Allison University*

Professional Experience

2023 -	Assistant Professor *Memorial University of Newfoundland*
2022 - 2023	Postdoctoral Fellow & Instructor *Carleton University*
2021 - 2022	Senior Research Scientist *Huawei Technologies Canada*

2019 - 2020   Research Scientist Internship
              Meta Reality Labs (formerly Chatham Labs)

2018 - 2019   Research Scientist Internship
              Huawei Technologies Canada

2017   Visiting Researcher
              Inria, Lille

2016   Software Engineer
              Mysa Smart Thermostats

Publications

*** Note about venues: in Human-Computer Interaction (HCI), conference proceedings are the preferred publication venues, being timelier and having the greatest impact (typical for experimental computer science). Top tier conferences require rigorous multi-stage review of manuscripts for archival proceedings. CHI (ACM's Conference on Human Factors in Computing Systems) and IMWUT (The Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies) are ranked #1 and #3, respectively, in HCI (via Google Scholar).

2023   **Jay Henderson**, Ali Neshati, Wei Zhou, Daniel Vogel, Edward Lank. 2023. *Interaction Region Characteristics for Midair Barehand Targeting on a Television.* Extended Abstracts of the 2023 CHI Conference on Human Factors in Computing Systems (CHI EA '23).
        DOI: 10.1145/3544549.3585877. ***(Acceptance rate: 34%)**

2023   Arman Hafizi, **Jay Henderson**, Ali Neshati, Wei Zhou, Edward Lank, Daniel Vogel. 2023. *In-vehicle Performance and Distraction for Midair and Touch Directional Gestures.* In Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (CHI '23).
        DOI: 10.1145/3544548.3581335. ***(Acceptance rate: 28.4%)**

2022   **Jay Henderson**, Tanya Jonker, Edward Lank, Daniel Wigdor, Ben Lafreniere. 2022. *Investigating Cross-Modal Approaches for Evaluating Error Acceptability of a Recognition-Based Input Technique.* In Proc. ACM Interact. Mob. Wearable Ubiquitous Technol. 6, 1 (March 2022), 22 pages.
        DOI: 10.1145/3517262. ***(Average acceptance rate: 22.5%)**

2020   **Jay Henderson**, Jessy Ceha, and Edward Lank. 2020. *STAT: Subtle Typing Around the Thigh for Head-Mounted Displays*. In 22nd International Conference on Human-Computer Interaction with Mobile Devices and Services (MobileHCI '20). Association for Computing Machinery, New York, NY, USA, Article 27, 1–11.
        DOI: 10.1145/3379503.3403549. ***(Average acceptance rate: 23.1%)**

2020   **Jay Henderson**, Sylvain Malacria, Mathieu Nancel, and Edward Lank. 2020. *Investigating The Necessity Of Delay In Marking Menu Invocation*. In Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems (CHI '20), Apr 25–30, 2020, Honolulu, HI USA. Association for Computing Machinery, New York, NY, USA, 1–13.
DOI: 10.1145/3313831.3376296. ***(Acceptance rate: 24.3%)***

2019   **Jay Henderson**, Sachi Mizobuchi, Wei Li, and Edward Lank. 2019. *Exploring Cross-Modal Training via Touch to Learn a Mid-Air Marking Menu Gesture Set*. In Proceedings of the 21st International Conference on Human-Computer Interaction with Mobile Devices and Services (MobileHCI '19). Association for Computing Machinery, New York, NY, USA, Article 8, 1–9.
DOI: 10.1145/3338286.3340119. ***(Average acceptance rate: 23.1%)***

2019   **Jay Henderson**, Jeff Avery, Laurent Grisoni, and Edward Lank. 2019. *Leveraging Distal Vibrotactile Feedback for Target Acquisition*. In Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems (CHI '19), May 4–9, 2019, Glasgow, Scotland UK. ACM, New York, NY, USA 11 Pages.
DOI: 10.1145/3290605.3300715. ***(Acceptance rate: 23.8%)***

2019   **Jay Henderson**, Shaishav Siddhpuria, Keiko Katsuragawa, and Edward Lank. 2017. *Fostering large display engagement through playful interactions*. In Proceedings of the 6th ACM International Symposium on Pervasive Displays (PerDis '17). Association for Computing Machinery, New York, NY, USA, Article 20, 1–8.
DOI: 10.1145/3078810.3078818. ***(Acceptance rate: 55%)***

Awards and Funding

2023   Postdoctoral Fellow Professional Development Fund
Valued at $2000 for travel to ACM's 2023 CHI conference.

2017 - 2019 David R. Cheriton Graduate Scholarship
Awarded by the director of the Cheriton School of Computer Science and an appointed committee based on academic excellence.
Valued at $10,000 annually ($20,000/2 years).

2016 - 2021 Math Graduate Student Award
Valued at $6,000 annually ($30,000/5 years).

2016 - 2021 Graduate Student Research Travel Assistantship
Valued at $500 for travel to various conferences.

Service

2021 -   Program Committee (Associate Chair)
           Graphics Interface
           ACM's DIS (Designing Interactive Systems)
           ACM's CHI Late Breaking Work
           ACM's MobileHCI Late Breaking Work

2018 -   Peer Reviewer
           ACM CHI (Human Factors in Computing Systems)
           ACM MobileHCI (Mobile Human-Computer Interaction)
           ACM AutoUI (Automotive User Interfaces)
           ACM DIS (Designing Interactive Systems)
           ACM ISS (Interactive Surfaces and Spaces)
           ACM ETRA (Eye Tracking Research & Applications)
           ACM SUI (Spatial User Interfaces)
           IEEE ISMAR (International Symposium on Mixed and Augmented Reality)
           IEEE VR (Virtual Reality and 3D User Interfaces
           Elsevier IJCHS (International Journal of Human Computer Studies)

2019   ACM Name Change Committee
           Association for Computing Machinery
           As a transgender person, I was selected to serve on a committee that developed
           an overarching name change policy within all ACM publications.
           (https://www.acm.org/publications/policies/author-name-changes)

2019   CHI Conference Allyship Program
           ACM SIGCHI
           Served as a point of contact for attendees about equity. Selected for experience
           in equity-related activities, particularly, involvement in LGBTQ+ initiatives.

2017   CHI Conference Student Volunteer
           ACM SIGCHI

Teaching

2023   COMP 4303 – AI for Games
           Instructor
           Memorial University

2023   ITEC 4011 – AI for Digital Media
           Instructor & Course Developer
           Carleton University

2018 - 2020	CS 349 – Introduction to User Interfaces
	Instructional Apprentice
	University of Waterloo

2017 - 2019	CS 105 – Introduction to Computer Programming 1
	Instructional Apprentice
	University of Waterloo

2017 - 2018	CS 106 – Introduction to Computer Programming 2
	Instructional Apprentice
	University of Waterloo

2019	CS 449/649 – Human-Computer Interaction
	TA
	University of Waterloo

2016	CS 135 – Designing Functional Programs
	TA
	University of Waterloo

2016	COMP 1731 – Programming Techniques and Algorithms
	TA
	Mount Allison University

2015	COMP 2931 – Introduction to Systems Programming
	TA
	Mount Allison University

Supervision

2024	Tushar Billakanti, BSc Student (CS)
	Human-Computer Interaction Lab
	Memorial University

2023	Eric DeMarbre, MSc Student (Informal supervision)
	Mixed/Augmented Reality and Virtual Environments Lab
	Carleton University

2023	Danielle Cole, BIT Student
	Mixed/Augmented Reality and Virtual Environments Lab
	Carleton University

2023	Elis Joynes, BIT Student
	Mixed/Augmented Reality and Virtual Environments Lab
	Carleton University

2022   Arman Hafizi, MMath Student (Informal supervision)
            Huawei-Waterloo Joint Innovation Lab
            University of Waterloo

2022   Jeffrey Lee, BEng Co-op Student (Mechatronics)
            Human-Machine Interaction Lab
            Huawei Technologies Canada

2022   Rachel Du, BEng Co-op Student (Mechatronics)
            Human-Machine Interaction Lab
            Huawei Technologies Canada