

# JAY HENDERSON

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## EDUCATION

### PhD in Computer Science (Human-Computer Interaction)

*University of Waterloo*

Sept 2016 – Present

*Waterloo, ON, Canada*

- Supervised by Professor Edward Lank.
- Focusing on gestural interactions.

### BSc Hons. in Computer Science, Minors in Mathematics and Psychology

*Mount Allison University*

Sept 2012 – May 2016

*Sackville, NB, Canada*

## EXPERIENCE

### Research Intern

*Chatham Labs (Now Facebook Reality Labs)*

Dec 2019 – May 2020

*Toronto, ON, Canada*

- Led a research project on evaluating interaction techniques in virtual reality.
- Supervised by Dr. Ben Lafreniere.
- Project is currently under review.

### Research Intern

*Huawei Technologies Canada*

Sept 2018 – Jan 2019

*Markham, ON, Canada*

- Led a research project on mid-air gesture guidance through touch interaction.
- Supervised by Dr. Sachi Mizobuchi and Dr. Wei Li.
- This internship resulted in publication at MobileHCI 2019 [P3]

### Research Intern

*University of Lille / Inria*

May 2017 – Aug 2017

*Lille, France*

- Led a research project on vibrotactile feedback provided by a smartwatch.
- Supervised by Professor Edward Lank and Professor Laurent Grisoni.
- This internship resulted in publication at CHI 2019 [P4].

### Software Engineer

*MYSa Smart Thermostats*

May 2016 – Sept 2016

*St. John's, NL, Canada*

- Primary responsibilities included development and design of the web user interface for a smart home thermostat. Other responsibilities included embedded system development, database implementation and connection of front end (UI) and back end.

### Undergraduate Research Assitant

*Mount Allison University*

May 2015 – May 2016

*Sackville, NB, Canada*

- Conducted a research project on evaluating the user experience of course registration systems for my undergraduate honours thesis.
- Supervised by Professor Andrew Hamilton-Wright.

### Teaching Assistant/Instructional Apprentice

*Mount Allison University / University of Waterloo*

Jan 2015 – Present

*Sackville, NB, Canada / Waterloo, ON, Canada*

- Responsibilities include conducting tutorials, instructing labs, marking, preparing course materials and holding office hours to consult with students.

## AWARDS

### David R. Cheriton Graduate Scholarship

*University of Waterloo*

2017 – 2019

*Waterloo, ON, Canada*

- Awarded by the director of the Cheriton School of Computer Science and an appointed committee based on academic excellence. Valued at \$10,000 annually.

### Math Domestic Graduate Student Award

*University of Waterloo*

2016 – Present

*Waterloo, ON, Canada*

- Awarded to incoming Canadian graduate students. Valued at \$6,000 annually.

## PEER REVIEWED PUBLICATIONS

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- [P1] **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
- [P2] **Jay Henderson**, Sylvain Malacria, Mathieu Nancel, and Edward Lank. 2020. *Investigating The Necessity Of Delay In Marking Menu Invocation*. In Proceedings of 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
- [P3] **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
- [P4] **Jay Henderson**, Jeff Avery, Laurent Grisoni, and Edward Lank. 2019. *Leveraging Distal Vibrotactile Feedback for Target Acquisition*. In Proceedings of 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
- [P5] **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

## NON-PEER REVIEWED PUBLICATIONS

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- [N1] Mohamed Khamis, **J. Henderson**, and Guiying Du. 2017. Title: PerDis 2017. IEEE Pervasive Computing 16, no. 4: 86–89. DOI: 10.1109/MPRV.2017.3971126
- [N2] **J. Henderson**. 2016. Evaluations of the Connect Course Registration System Across Mobile and Desktop Interfaces. (Bachelor's Thesis).

## TECHNICAL SKILLS

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**Languages:** Java, Python, C#, JavaScript, HTML/CSS, R

**Developer Tools:** Git, Unity, Android Studio, IntelliJ, Eclipse, Jupyter Notebook

**Libraries:** pandas, NumPy, Matplotlib, OpenCV, LeapMotion

**Other:** Experimental Design, User Studies, SPSS, UI/UX Design, Microsoft Office, Videography and Social Media.

## VOLUNTEERING

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- Peer Reviewer** 2017 – Present  
*ACM SIGCHI Conferences (CHI, MobileHCI, and Automotive UI), IJHCI, KSII TIS*
- CHI Conference Allyship Program** May 2019  
*ACM SIGCHI* *Glasgow, Scotland*
- Selected for past experiences in equity-related activities, these volunteers receive training in basic bystander intervention, harassment, and discrimination management, as well as relevant policies and CHI Equity procedures. Allies serve as a point of contact for any questions from attendees about equity manners.
- CHI Conference Student Volunteer** May 2017  
*ACM SIGCHI* *Denver, CO, USA*
- S.M.I.L.E. Buddy** Sept 2017 - May 2016  
*Mount Allison University / Cumberland YMCA* *Amherst, NS, Canada*
- The Sensory Motor Instructional Leadership Experience (S.M.I.L.E.) is a recreational program offered every Saturday morning, where I was paired with a child who may otherwise not be able to participate in typical recreation programs due to their unique developmental needs.
- Youth Computer Science Workshop Instructor** 2014  
*Mount Allison University* *Sackville, NB, Canada*
- Instructed fun introductory programming tasks to elementary school-aged children using MIT's Scratch development environment.