Patrick A. Carrington — Curriculum Vitae

Carnegie Mellon University
Human-Computer Interaction Institute
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ACADEMIC POSITIONS

Associate Professor, Human-Computer Interaction Institute — 2019 – Present
Carnegie Mellon University — Pittsburgh, Pennsylvania

Postdoctoral Research Fellow, Human-Computer Interaction Institute — 2017 – 2019
Carnegie Mellon University, Supervisor: Jeffrey P. Bigham — Pittsburgh, Pennsylvania

EDUCATION

Ph.D., Human-Centered Computing — 2017
University of Maryland, Baltimore County — Baltimore, Maryland

M.S., Human-Centered Computing — 2012
University of Maryland, Baltimore County — Baltimore, Maryland

B.S., Information Systems [Cum Laude] — 2011
University of Maryland, Baltimore County — Baltimore, Maryland
Information Systems Certificate: Web Development

RESEARCH GRANTS AND GIFTS

- HHS-NINILRR: Accessible Delivery Robots — $400,000 — 2023
  PI: Aaron Steinfeld, Co-PI: Patrick Carrington
- Google Collaboration: AI in the Accessible Kitchen — $80,000 — 2023
  PI: Patrick Carrington
- NSF SCC IRG: Enabling Independent Mobility in People with Physical Disabilities — $260,000 — 2022
  PI: Carol Menassa (U-Mich) Co-PI: Patrick Carrington (CMU PI)
- Mobility21 UTC: Bus on the Edge: Passengers — $100,000 — 2022
  PI: Christoph Mertz, Co-PI: Patrick Carrington
- NSF SCC-PG: Equitable New Mobility — $150,000 — 2022
  PI: Sarah Fox, Co-PIs: Corey Harper, Nikolas Martelaro, Patrick Carrington, Jodi Forlizzi
- USDOT Inclusive Design Challenge – Stage 1 — $300,000 — 2021
  PI: Nikolas Martelaro, Co-PIs: Patrick Carrington, Sarah Fox, Jodi Forlizzi
- Mobility21 UTC "Big Idea": Integrating Solutions to Enable the "Complete Trip" — $571,324 — 2021
  PI: Stephen Smith, Co-PIs: Patrick Carrington, Artur Dubrawski, Srinivasa Narasimhan, Jean Oh, Zachary B. Rubinstein, Robert Tamburo, Ji Zhang
- Mobility21 UTC: Data Collection Systems to Support Community Driven Mobility Services — $100,000 — 2021
  PI: Patrick Carrington, Co-PIs: Nikolas Martelaro, Sarah Fox, Jodi Forlizzi

- Mobility21 UTC: Designing the Future of Transit Work — $100,000 — 2021
  PI: Sarah Fox, Co-PIs: Nikolas Martelaro, Patrick Carrington, Jodi Forlizzi
- Microsoft Research Software Engineering Innovations Fund — $25,000 — 2013
  Title: Wheeltop Interaction: Full-Body Gesture Control for Power Wheelchair Users
  (Significant Writing Contribution with Kane, S.K. and Hurst, A.)
- Nokia Research, University Cooperation Funding — $11,450 — 2013

HONORS AND AWARDS

Awards

- ASSETS 2024: Best Student Paper 2024
- DIS 2021: Best Paper Honorable Mention (Top 5%) 2021
- CHI 2020: Best Paper Honorable Mention (Top 5%) 2020
- CHI 2019: Best Paper Award (Top 1%) 2019
- ASSETS 2018: Best Paper Honorable Mention (Top 5%) 2018
- CHI 2014: Best Paper Honorable Mention (Top 5%) 2014

PUBLICATIONS

Peer-Reviewed Journal Articles

[J.1] Carrington, P., Chang, J-M., Chang, K., Hornback, C., Hurst, A., and Kane, S.K. (2016) The Gest-Rest Family: Exploring input possibilities for Wheelchair armrests. *ACM* Transactions on *Accessible Computing.* ACM.

Peer-Reviewed Conference Papers

[C.34] Taheri, A., Sra, M., Carrington, P., & Bigham, J. P. (2025). Designing Through Lived Experience: Reflections on Control, Embodiment, and Social Bias in Accessibility Research. In Proceedings of the 27th International ACM SIGACCESS Conference on Computers and Accessibility (pp. 1-7).

[C.33] Zhang, L., Zhang, Z., Clepper, G., Li, F. M., Carrington, P., Wobbrock, J. O., & Findlater, L. (2025). VizXpress: Towards Expressive Visual Content by Blind Creators Through AI Support. In Proceedings of the 27th International ACM SIGACCESS Conference on Computers and Accessibility (pp. 1-18).

[C.32] Li, F. M., Ng, K., Zhu, B., & Carrington, P. (2025). Exploring object status recognition for recipe progress tracking in non-visual cooking. In Proceedings of the 27th International ACM SIGACCESS Conference on Computers and Accessibility (pp. 1-15).

[C.31] Li, F. M., Oharazawa, A., Zhu, C. Q., Fan, M., Sato, D., Asakawa, C., & Carrington, P. (2025). More than One Step at a Time: Designing Procedural Feedback for Non-visual Makeup Routines. In Proceedings of the 27th International ACM SIGACCESS Conference on Computers and Accessibility (pp. 1-17).

[C.30] Ning, Z., Li, L., Killough, D., Seo, J., Carrington, P., Tian, Y., Zhao, Y., Li, F.M., & Li, T. J. J. (2025). AROMA: Mixed-Initiative AI Assistance for Non-Visual Cooking by Grounding Multimodal Information Between Reality and Videos. In Proceedings of the 38th Annual ACM Symposium on User Interface Software and Technology (pp. 1-15).

[C.29] Li, Y., Mollyn, V., Yuan, K., and Carrington, P. (2024). WheelPoser: Sparse-IMU Based Body Pose Estimation for Wheelchair Users. In Proceedings of the 26th International ACM SIGACCESS Conference on Computers and Accessibility (Article 8, 1–17) *[Best Student Paper Award]*

[C.28] Hammad, N., Elavsky, F., Moharana, S., Chen, J., Lee, S., Carrington, P., Moritz, D., Hammer, J., and Harpstead, E. (2024). Exploring The Affordances of Game-Aware Streaming to Support Blind and Low Vision Viewers: A Design Probe Study. In Proceedings of the 26th International ACM SIGACCESS Conference on Computers and Accessibility (Article 16, 1–13.)

[C.27] Li, F. M., Wang, A., Carrington, P., and Kane, S. K. (2024). A Recipe for Success? Exploring Strategies for Improving Non-Visual Access to Cooking Instructions. In Proceedings of the 26th International ACM SIGACCESS Conference on Computers and Accessibility. (Article 26, 1–15)

[C.26] Moharana, S., Washington, G., Carrington, P., and Harrington, C. N. (2024). Towards Contextualizing Embodiment of Intelligent Systems. In Intelligent Systems Conference (pp. 109-116). Cham: Springer Nature Switzerland.

[C.25] Jang, J., Moharana, S., Carrington, P. and Begel, A. (2024). "It's the only thing I can trust": Envisioning Large Language Model Use by Autistic Workers for Communication Assistance. In Proceedings of the CHI Conference on Human Factors in Computing Systems (pp. 1-18).

[C.24] Li, F. M., Liu, M. X., Kane, S. K., and Carrington, P. (2024). A Contextual Inquiry of People with Vision Impairments in Cooking. In Proceedings of the CHI Conference on Human Factors in Computing Systems (pp. 1-14).

[C.23] Pei, S., Chen, A., Chen, C., Li, F.M., Fozzard, M., Chi, H.Y., Weibel, N., Carrington, P. and Zhang, Y. (2023) Embodied Exploration: Facilitating Remote Accessibility Assessment for Wheelchair Users with Virtual Reality. In Proceedings of the 25th International ACM SIGACCESS Conference on Computers and Accessibility (pp. 1-17).

[C.22] Li, F.M., Zhang, L., Bandukda, M., Stangl, A., Shinohara, K., Findlater, L. and Carrington, P. (2023) Understanding Visual Arts Experiences of Blind People. In Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (pp. 1-21).

[C.21] Li, Y., Li, F.M. and Carrington, P. (2023). Breaking the "Inescapable" Cycle of Pain: Supporting Wheelchair Users' Upper Extremity Health Awareness and Management with Tracking Technologies. In Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (pp. 1-17).

[C.20] Li, F. M., Liu, M. X., Zhang, Y., Carrington, P. (2022). Freedom to Choose: Understanding Input Modality Preferences of People with Upper-body Motor Impairments for Activities of Daily Living. In Proceedings of the 24th International ACM SIGACCESS Conference on Computers and Accessibility (pp. 1-16).

[C.19] Martelaro, N., Carrington, P., Fox, S., Forlizzi, J. (2022). Designing an Inclusive Mobile App for People with Disabilities to Independently Use Autonomous Vehicles. In Proceedings of the 14th International Conference on Automotive User Interfaces and Interactive Vehicular Applications (pp. 45-55).

[C.18] Li, F.M., Spektor, F., Xia, M., Huh, M., Cederberg, P., Gong, Y., Shinohara, K. and Carrington, P. (2022) "It Feels Like Taking a Gamble": Exploring Perceptions, Practices, and Challenges of Using Makeup and Cosmetics for People with Visual Impairments. In CHI Conference on Human Factors in Computing Systems (pp. 1-15). ACM.

[C.17] Li, F.M., Lu, C., Lu, Z., Carrington, P. and Truong, K.N. (2022) An Exploration of Captioning Practices and Challenges of Individual Content Creators on YouTube for People with Hearing Impairments. *Proc. ACM Human-Computer Interaction 6, CSCW1*, Article 75 (April 2022), 26 pages. https://doi.org/10.1145/3512922.

[C.16] Khurana, R, Wang, A., Carrington, P. (2021) Beyond Adaptive Sports: Challenges & Opportunities to Improve Accessibility and Analytics. *Proceedings of ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2021)*. ACM.

[C.15] Li, F.M., Dorst, J., Cederberg, P., and Carrington, P. (2021) Non-Visual Cooking: Exploring Practices and Challenges of Meal Preparation by People with Visual Impairments. *Proceedings of ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2021)*. ACM.

[C.14] Bennett, C.L., Ackerman, E., Fan, B., Bigham, J.P., Carrington, P., and Fox, S. (2021) Accessibility and The Crowded Sidewalk: Micromobility's Impact on Public Space. *Proceedings of the Designing Interactive Systems Conference (DIS 2021)*. ACM. *[Best Paper Honorable Mention - Top 5%]*

[C.13] Liu, X., Carrington, P., Chen, X., and Pavel, A. (2021) What Makes Videos Accessible to Blind and Visually Impaired People?. *Proceedings of ACM Conference on Human Factors in Computing (CHI 2021).* ACM.

[C.12] Swaminathan, S., Yim, Y., Hudson, S.E., Bennett, C., Carrington, P. (2021) From Tactile to NavTile: Opportunities and Challenges for Multi-Modal Feedback in Guiding Surfaces during Non-Visual Navigation. *Proceedings of ACM Conference on Human Factors in Computing (CHI 2021).* ACM.

[C.11] Gleason, C., Pavel, A., McCamey, E., Low, C., Carrington, P., Kitani, K., and Bigham, J.P. (2020) Twitter A11y: Making Images on Social Media Accessible. *Proceedings of ACM Conference on Human Factors in Computing (CHI 2020).* ACM. *[Best Paper Honorable Mention - Top 5%]*

[C.10] Gleason, C., Pavel, A., Liu, X., Carrington, P., Chilton, L., and Bigham, J.P. (2019) Making Memes Accessible. *Proceedings of ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2019).* ACM.

[C.9] Gleason, C., Carrington, P., Cassidy, C., Morris, M.R., Kitani, K., and Bigham, J.P. (2019) "It's almost like they're trying to hide it": How User-Provided Image Descriptions Have Failed to Make Twitter Accessible. *WWW 2019: The Web Conference.*

[C.8] Hofmann, M., Williams, K., Kaplan, T., Valencia, S., Han, G., Hudson, S.E., Mankoff, J., and Carrington, P. (2019) "Occupational Therapy is Making": Design Iteration and Digital Fabrication in Occupational Therapy. *ACM Conference on Human Factors in Computing Systems (CHI 2019).* ACM. *[Best Paper Award - Top 1%]*

[C.7] Carrington, P., Laput, G., and Bigham, J.P. (2018) Exploring Data Tracking and Sharing Preferences of Wheelchair Athletes. *Proceedings of ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2018).* ACM. *[Best Paper Honorable Mention - Top 5%]*

[C.6] Rosenblatt, L., Carrington, P., Hara, K., and Bigham, J.P. (2018) Vocal Programming for People with Upper-Body Motor Impairments. *Proceedings of Web for All (W4A 2018).* ACM.

[C.5] Carrington, P., Ketter, D., and Hurst, A. (2017) Understanding Fatigue and Stamina Management Opportunities and Challenges in Wheelchair Basketball. *Proceedings of ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2017).* ACM.

[C.4] Carrington, P., Chang, K., Mentis, H., and Hurst, A. (2015) "But, I don't take steps": Examining the inaccessibility of fitness trackers for wheelchair athletes. *Proceedings of ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2015).* ACM.

[C.3] Carrington, P., Hosmer, S., Yeh, T., Hurst, A., and Kane, S.K. (2015) "Like This, But Better": Supporting Novices' Design and Fabrication of 3D Models Using Existing Objects. *In Proceedings of iConference 2015.*

[C.2] Carrington, P., Hurst, A., and Kane, S.K. (2014) The Gest-Rest: A Pressure-Sensitive Chairable Input Pad for Power Wheelchair Armrests. *In Proceedings of ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2014).* ACM.

[C.1] Carrington, P., Hurst, A., and Kane, S.K. (2014) Wearables and Chairables: Inclusive Design of Mobile Input and Output Techniques for Power Wheelchair Users. *In Proceedings of ACM Conference on Human Factors in Computing Systems (CHI 2014).* ACM. *[Best Paper Honorable Mention - Top 5%]*

Peer-Reviewed Conference Abstracts and Posters

[P.4] Jang, J., Li, Y., & Carrington, P. (2022, October). "I Should Feel Like I'm In Control": Understanding Expectations, Concerns, and Motivations for the Use of Autonomous Navigation on Wheelchairs. In Proceedings of the 24th International ACM SIGACCESS Conference on Computers and Accessibility (pp. 1-5).

[P.3] Low, C., McCamey, E., Gleason, C., Carrington, P., Bigham, J.P, and Pavel, A. (2019). Twitter A11y: A Browser Extension to Describe Images. *In Proceedings of ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2019)* p. 551-553. ACM.

[P.2] Carrington, P., Hurst, A., and Kane, S. K. (2013). How Power Wheelchair Users Choose Computing Devices. *In Proceedings of ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2013)* p. 52. ACM.

[P.1] Carrington, P., Kuber, R., Anthony, L., Hurst, A. and Prasad, S. (2012) Developing an Interface to Support Procedural Memory Training using a Participatory-Based Approach. *In Proceedings of BCS HCI 2012*.

Workshop Organization

[WO.3] Arakawa, R., Li, F. M., Zhang, N., Huh, M., Pavel, A., Suzuki, R., ... & Yan, Y. (2025, September). Accessible Cyber-Physical Activities. In Adjunct Proceedings of the 38th Annual ACM Symposium on User Interface Software and Technology (pp. 1-3).

[WO.2] Branco, D., Carrington, P., Del Din, S., Doryab, A., Gjoreski, H., Guerreiro, T., McNaney, R., Montague, K., Pradhan, A., Rodrigues, A. and Vega, J., 2021, September. Wild by Design: Workshop on Designing Ubiquitous Health Monitoring Technologies for Challenging Environments. In Adjunct Proceedings of the 2021 ACM International Joint Conference on Pervasive and Ubiquitous Computing and Proceedings of the 2021 ACM International Symposium on Wearable Computers (pp. 508-510).

[WO.1] Gleason, C., Carrington, P., Chilton, L. B., Gorman, B. M., Kacorri, H., Monroy-Hernández, A., ... & Wu, S. (2019, November). Addressing the Accessibility of Social Media. In Conference Companion Publication of the 2019 on Computer Supported Cooperative Work and Social Computing (pp. 474-479)..

Workshop Papers

[W.4] Moharana, S., Carrington, P., Harrington, C. (2019) Inclusive Design of CUIs Across the Intersection of Race and Disability. *ACM CHI 2023 Workshop. CUI@CHI: Inclusive Design of CUIs Across Modalities and Mobilities.*

[W.3] Swaminathan, S., Valencia, S., and Carrington, P. (2019) An Approach to Last Meter Problem: Designing and Deploying Low-Cost, Custom Fabricated Interactive Tactile Tiles for Navigation and Spatial Awareness. *CHI 2019 Workshop on Hacking Blind Navigation.*

[W.2] Carrington, P., Hurst, A., Kane, S.K. (2014) Designing Chairables: Assistive Augmentations to Support Wheelchair Users. *Workshop on Assistive Augmentation in Conjunction with CHI 2014.*

[W.1] Anthony, L., Carrington, P., Chu, P., Kidd, C., Lai, J., and Sears, A. (2011) Gesture Dynamics: Features Sensitive to Task Difficulty and Correlated with Physiological Sensors. *In Proceedings of ICMI MMCogEmS 2011*.

Doctoral Colloquia

[D.1] Carrington, P. (2014) Developing a Chairable Computing Platform to Support Power Wheelchair Users. *ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2014).*

Editorial Reviewed Works

[E.4] Carrington, P., Laput, G., & Bigham, J. P. (2020). SpokeSense: developing a real-time sensing platform for wheelchair sports. *ACM SIGACCESS Accessibility and Computing*, (124), Article 2.

[E.3] Carrington, P., Bernart, E. (2019) Computer Science and Sports: the digital evolution of physical competition. *ACM XRDS*. 25, 4 (July 2019), p. 8-9.

[E.2] Carrington, P. Bigham, J. P., & Carrington, P. (2018). Learning from the front: People with disabilities as early adopters of AI. *Proceedings of the 2018 HCIC Human-Computer Interaction Consortium*.

[E.1] Kane, S.K., Hurst, A., Buehler, E., Carrington, P., Williams, M. (2014) Collaboratively Designing Assistive Technology. *ACM Interactions*. 21, 2 (March 2014), p. 78-81.

Non-Refereed Publications and Tech Reports

[O.2] Principe Cruz, E., Kirabo, L., Carrington, P., & Hammer, J. (2021). Building Anti-Racist Futures at the CMU HCII: Recruiting BIPOC Graduate Students: Virtual Recruitment Event Design. (In press). BIPOC Literary Journal: The Colors We Carry.

[O.1] Anthony, L., Carrington, P., Chu, P., Kidd, C., Lai, J., and Sears, A. (2011). Detecting Events of Interest with Physiological Sensors in a Real-World Email Search Task. *Technical Report UMBC-IS-TR-007*, 10 Oct 2011.

PRESS AND BLOG MENTIONS

[1] Williams, M. Virtually Accessible: HCII Researchers Ensure AR, VR Technologies Work for Everyone. SCS News, 2024. https://www.cs.cmu.edu/news/2024/ar-vr-accessibility
[2] Spice, B. Accessing Recipe Information Without Looking: SCS Researchers Gain Cooking Insights From People With Low Vision. SCS News, 2024. https://www.cs.cmu.edu/news/2024/nonvisual-cooking
[3] Blazina, E. CMU team to examine autonomous vehicles for people with disabilities. Pittsburgh Post-Gazette, 2021. https://www.post-gazette.com/news/transportation/2021/01/11/Carnegie-Mellon-University-federal-Department-of-Transportation-300-000-grant-people-with-disabilities-autonomous-vehicles/stories/202101080091
[4] Keppler, N. ChairJam Puts Spin on Hackathon Concept. cmu.edu, 2019. https://www.cmu.edu/news/stories/archives/2019/october/chairjam-spins-hackathon-concept.html
[5] Harlan, K. HCII Team Tests Fitness Tracker for Wheelchair Athletes at NWBT. hcii.cmu.edu, 2018. http://hcii.cmu.edu/news/2018/hcii-team-tests-fitness-tracker-wheelchair-athletes-nwbt
[6] Dubrow, A. Making the maker movement accessible. NSF.gov, 2015. https://www.nsf.gov/discoveries/disc_summ.jsp?cntn_id=135608
[7] Dougherty, D. Joe Olsons diy-enabled wheelchair. Makezine Blog, 2014. http://makezine.com/ 2014/07/08/joe-olsons-diy-enabled-wheelchair/
[8] Masterson, K. Launch pad. UMBC Magazine, Winter 2014. http://umbcmagazine.wordpress.com/umbc-magazine-winter-2014/launch-pad/

OTHER PRESENTATIONS AND POSTERS

Invited Talks

- Creating "Everyday" Accessible Experiences — January 2026
  Informatics Seminar Series, UC Irvine
- Choosing Your Own Adventure: Enabling Accessible Experiences — November 2023
  Information Science Seminar Series, University of Colorado, Boulder
- Understanding Everyday Challenges to Create Accessible Experiences — March 2023
  OurCS Virtual Diversity Conference Workshop
- Understanding Everyday Challenges to Create Accessible Experiences — March 2023
  Workshop on Bridging AI and Disability
- AI in the Accessible Home — February 2023
  AAAI Workshop on AI Assisting Daily Tasks
- Wearable AT and Logging — November 2022
  NIDILRR RERC Meeting
- An Accessibility Researcher's Origin Story — April 2022
  PROMISE Seminar Series
- From Content to Intent: Designing Accessible UX on Social Media — March 2022
  University of Pittsburgh, DBMI Seminar Series
- Designing Systems to Enable Accessible User Experiences — March 2022
  uxWaterloo
- Building Chairables: Designing Technologies for Accessibility and Engagement — May 2021
  BostonCHI
- Building Chairables: Designing Accessible Mobile Computing Experiences — March 2021

DUB Seminar Series, University of Washington

- Building Chairables: Designing Technologies for Accessibility and Engagement — January 2021
  Human-Computer Interaction Seminar Series, Stanford University
- Building Chairables: Designing Accessible Mobile Computing Experiences — November 2020
  MISC Seminar Series, University of Michigan
- Building Chairables for Sports — November 2019
  Computer Science Seminar Series, James Madison University
- Chairable Computing: Designing Accessible Computing Experiences for Wheelchair Users — June 2019
  The iSchool Inclusion Institute (i3), University of Pittsburgh
- Digital Access for People with Motor Impairments — February 2018
  Digital Access Training: Universal Access Committee, Carnegie Mellon University
- Chairable Computing: Designing Mobile and Wearable Tech for Wheelchair Users — May 2017
  Human-Computer Interaction Institute, Carnegie Mellon University
- Designing Accessible Interactive Systems for People with Mobility Impairments — November 2014
  HCI Seminar at Rochester Institute of Technology

Invited Panels

- HCI Today: Supporting Ability and Performance through Technology — October 2019
  HCII 25th Panel: HCI Today
- What People with Disabilities Can Teach Us About AI — June 2018
  HCIC 2018 Panel: AI and HCI, New Interaction Modalities

TEACHING

Instructor

- 05-332/632: Accessibility and Assistive Technology — Fall 2025
  Carnegie Mellon University, Human-Computer Interaction Institute
- 05-391/891: Designing Human Centered Software — Fall 2022 - 2026
  Carnegie Mellon University, Human-Computer Interaction Institute
- 05-499/899: Special Topics: Celebrating Accessibility — Fall 2024
  Carnegie Mellon University, Human-Computer Interaction Institute
- 05-499/899: Special Topics: Accessibility — 2021 - 2022
  Carnegie Mellon University, Human-Computer Interaction Institute
- 05-430/630: Programming Usable Interfaces — Spring 2020, Fall 2021
  Carnegie Mellon University, Human-Computer Interaction Institute
- IS 101: Introduction to Computer-Based Systems — Fall 2014, Spring 2015
  University of Maryland, Baltimore County, Information Systems

Guest Lecturer

- Inclusive Making, *Instructor: Marcelo Worsley* — Spring 2019
  Northwestern University, Electrical Engineering and Computer Science
- 05 499/899: Special Topics: Accessibility, *Instructor: Jeffrey Bigham* — Fall 2017
  Carnegie Mellon University, Human-Computer Interaction Institute

SUPERVISION

Post-Doctoral Mentoring

- 2024 – Present, Atieh Taheri, Presidential Postdoctoral Fellow

Doctoral Student Advising

- 2020-Present, Mingzhe Li, (Advisor)
- 2021-Present, Yunzhi Li (Advisor)
- 2021-Present, Frank Elavsky (Co-Advised with Dominik Moritz)
- 2022-Present, Joon Jang (Co-Advised with Andrew Begel)
- 2022-Present, Sanika Moharana (Co-Advised with Christina Harrington)
- 2024-Present, Ezra Awumey (Co-Advised with Jodi Forlizzi)
- 2024-Present, Doctoral Committee Member, Maggie Collier
- 2022-2024, Doctoral Committee Member, Tamanna Motahar (University of Utah)
- 2021-2022, Doctoral Committee Member, Reza Moradinezhad (Drexel University)
- 2021-2022, Doctoral Committee Member, Megan Hoffmann
- 2021-2022, Doctoral Committee Member, Kristin Williams
- 2019-2020, Doctoral Committee Member, Cole Gleason

Undergraduate/Graduate Research Mentoring

- 2025-2026, Chloe Zhu
- 2025, Tatyana Cruz (CMU ECE)
- 2025, Riya Mody (M.S. HCI)
- 2024-2026, Kaitlyn Ng
- 2024, Ashley Fong (University of California, Berkely, Summer 2024 REU)
- 2024, Areen Khalaila (Brandeis University, Summer 2024 REU)
- 2023, Ashley Wang (MS Thesis Advisor)
- 2022, Joon Jang
- 2021, Isabel Ngan (M.S. HCI)
- 2021, Juan Garza (Summer REU)
- 2021, Mei-Lian Vader (Summer REU)
- 2019, Simran Jobanputra (M.S. HCI)
- 2020, Bruce Liu
- 2020, Yellina Yim
- 2020, Nali Huynh
- 2020, Andrew Chuang
- 2019, Elena Deng
- 2018, Stephanie Wang, B.S. Statistics and ML, CMU, Summer 2018 REU
- 2018, Adrian Jenkins, B.S. Computer Science, Hampton University, Summer REU

ACADEMIC AND PROFESSIONAL SERVICE

Carnegie Mellon University

HCII Ph.D. Admissions Committee Co-Chair	2021-2026
HCII Diversity, Equity, and Inclusion Committee (BLM Subcommittee Chair)	2020-2021
HCII Undergraduate Admissions Committee	2020
HCII Ph.D. Admissions Committee	2020

HCII MHCI Admissions Committee	2026
Accessibility Lunch Seminar (Co-Organizer)	2019-2024

Conference Program Committees

ASSETS 2026, Program Committee	2026
CHI 2024, Papers Program Committee	2024
ASSETS 2024, Program Committee	2024
ASSETS 2023, Program Committee	2023
CHI 2023, Papers Program Committee	2023
ASSETS 2022, Program Committee	2022
ASSETS 2020, Program Committee	2020
CHI 2019, Papers Program Committee	2019
Pervasive Health 2019, Technical Program Committee	2019
ASSETS 2019, Program Committee	2019
ASSETS 2018, Program Committee	2018
CHI 2018, Papers Program Committee	2018
Pervasive Health 2018, Technical Program Committee	2018
Pervasive Health 2017, Technical Program Committee	2017
Mobile HCI 2017, Late Breaking Work Associate Chair	2017
ASSETS 2015, Program Committee	2015

Reviewing

Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT)	2021-2024
International Web for All Conference (W4A)	2020-2022
User Interface Software and Technologies (UIST)	2018-2024
Transactions on Accessible Computing (TACCESS)	2018-2024
ACM Conference on Human Factors in Computing Systems (CHI)	2013-2024
Designing Interactive Systems (DIS)	2018
International Symposium on Wearable Computing (ISWC)	2017
International Journal of Human-Computer Studies (IJHCS)	2016-2017
SIGACCESS Conference on Accessible Computing (ASSETS) Posters	2015

Conference Organizing Committees

ASSETS 2025, Student Research Competition Co-Chair	2025
ASSETS 2023, Doctoral Consortium Co-Chair	2023
ASSETS 2021, Doctoral Consortium Co-Chair	2021
Human-Computer Interaction Consortium (HCIC) 2021, Co-Chair	2021
UIST 2019, Diversity Chair	2019
ACM Collective Intelligence 2019, Accessibility Chair	2019
ASSETS 2019, Local Arrangements Chair	2019
CHI 2018 Organizing Committee, Student Volunteer Co-Chair	2018

CHI 2017 Organizing Committee, Student Volunteer Co-Chair 2017

Conference Student Volunteering

ACM Conference on Human Factors in Computing Systems (CHI) 2013-2016
Computer Supported Cooperative Work (CSCW) 2014-2015
International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp) 2014
User Interface Software and Technologies (UIST) 2012

Other Service

ACM XRDS Magazine, Guest Editor 2019
ACM ASSETS, Session Chair 2017-2018
UMES Regional Research Symposium, Invited Moderator 2017

COMMUNITY SERVICE AND OUTREACH

PROMISE AGEP: Summer Success Institute, Panelist Aug 2020
CampBioE @ University of Pittsburgh "STEM Careers", Panelist Aug 2018
National Wheelchair Basketball Tournament, Operations Committee 2016-2018
Maryland Science Center Gadgets and Gears Day (800 attendees), Exhibitor 2017
UMBC 50th Anniversary Celebration PAD Lab Maker Exhibit (2,000 attendees), Exhibitor 2016
Maryland Celebration of the 26th Anniversary of the ADA (300 attendees), Exhibitor 2016
UMBC Exhibit at Mini-MakerFaire, Organizer Sep 2013
NSF LSAMP Bridge to Doctorate Program, Peer Mentor 2013-2017
IS Dept. Ph.D. Day "How to be a Successful Ph.D. Student", Panelist Feb 201

AFFILIATIONS AND MEMBERSHIP

Healthcare Information and Management Systems Society (HIMSS) 2017
ACM Special Interest Group for Computer-Human Interaction (SIGCHI) 2013
ACM's Special Interest Group on Accessible Computing (SIGACCESS) 2012
Association for Computing Machinery (ACM) 2011
Golden Key Honors Society: UMBC Chapter 2010