Amy Hurst

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Education

Ph.D.	2010	Carnegie Mellon, Human-Computer Interaction.
M.S.	2007	Carnegie Mellon, Human-Computer Interaction.
B.S.	2003	Georgia Institute of Technology, Computer Science.
Certificate	2003	Georgia Institute of Technology, Film Studies.

Employment

New York University (NYU)

2019 - present	Associate Professor	Occupational Therapy Department
2019 - present	Associate Professor	Technology, Culture, and Society Department

University of Maryland, Baltimore County (UMBC)

2016 - 2018	Associate Professor	Information Systems Department
2010 - 2016	Assistant Professor	Information Systems Department

Carnegie Mellon

2005 - 2010	Research Assistant	Supervisors: Jennifer Mankoff and Scott E. Hudson
2003 - 2005	Research Assistant	Supervisors: Chris Atkeson and John Zimmerman

Georgia Institute of Technology

2002 - 2003	Research Assistant	Supervisor: Tucker Balch
2000 - 2003	Research Assistant	Supervisor: Thad Starner

Palo Alto Research Center (PARC)

1999, 2000, 2001, 2003	Summer Intern	Supervisors: Ruth Rosenholtz, Paul Aoki, Allison Woodruff, Stuart K. Card

Honors and Awards

2018	ACM Senior Member.
2016	NCWIT Undergraduate Mentoring Award.
2016	Best Student Paper, ACM SIGACCESS Conference on Computers and Accessibility (ASSETS).
2015	Best Paper Award, ACM Conference on Human Factors in Computing Systems (CHI).
2015	Best Paper Candidate, Web for All Conference (W4A).
2014	Best Paper Honorable Mention, ACM Conference on Human Factors in Computing Systems (CHI).
2009	Richard King Mellon Presidential Fellowship in the Life Sciences.
2008	Google Anita Borg Scholarship.
2005	National Science Foundation Graduate Research Fellowship.

Professional Leadership Experience and Training

2019 - present	Ability Project, Director, NYU.
2019	Web4All (W4A) 2019, Program Chair.
2017	ACM SIGACCESS Conference on Computers and Accessibility (ASSETS), General Chair.
2017	HERS Summer Institute, Bryn Mawr.
2016 - 2018	Human-Centered Computing (HCC), Graduate Program Director, UMBC.
2015 - 2016	Interactive Systems Research Center (ISRC), Associate Director, UMBC.
2010 - 2018	Prototyping and Design Lab, Founder and Director, UMBC.

Research Support

Competitive Federal Funding

- **Co-Principle Investigator:** Sensory Tools for Interpreting Historic Sites. Institute of Museums and Library Services (IMLS). Funded August 2019 (3 years) Sub-award of $235,985. ($588,882 total award). **NYU.**
- **Principle Investigator:** MAKER EAGER: Making Opportunities for Baltimore Inner City Youth in a 3D Print Shop. National Science Foundation (NSF). Funded August 2016 (2 years). $298,425. UMBC.
- **Principle Investigator:** REU Supplement for "MAKER EAGER: Making Opportunities for Baltimore Inner City Youth in a 3D Print Shop." National Science Foundation (NSF). Funded August 2016 (2 years). $10,000. UMBC.
- **Co-Principal Investigator:** "Disability Rehabilitation Research Project (DRRP) on Inclusive Cloud and Web

Computing." National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR). Principal Investigator: Aaron Steinfeld. Co-Principle Investigators: Jeffrey Bigham, Yun Huang, Anthony Tomasic, Yang Wang and John Zimmerman. Funded January 1, 2014 (5 years). Sub-award of $625,000 (3.7 Million total award). UMBC.

- **Co-Principal Investigator:** "MRI: Acquisition of a 3D Object and Motion Capture System. National Science Foundation (NSF)." Principal Investigator: Mark Olano. Co-Principal Investigators: Erle Ellis, Daniel Bailey, Shaun Kane. Funded August 2014 (3 years). $175,195. UMBC.
- **Principle Investigator:** "EAGER: Exploring Appropriate 3D Printing Paradigms in Special Education." National Science Foundation (NSF). Funded August 2014 (2 years). $149,884. UMBC.
- **Principle Investigator:** REU Supplement for "EAGER: Exploring Appropriate 3D Printing Paradigms in Special Education." National Science Foundation (NSF). Funded August 2014 (2 years). $10,000. UMBC.
- **Principle Investigator:** "Voting System Dexterity Analysis." National Institute of Standards and Technology (NIST). Funded October 2010 (2 years). $37,509. UMBC.

Competitive Industrial Funding

- **Principal Investigator:** "Investigating the Potential for Hand-cycles in the Citi Bike Fleet". Funded August 2019 (1 Semester). $15,000. **NYU.**
- **Principal Investigator:** "Exploring Ultra-Mobile Navigation Aids for Blind People." Toyota Robotics. Funded January 2016 (1 Year). $190,000. UMBC.
- **Principal Investigator:** "Exploring Ultra-Mobile Navigation Aids for Blind People." Toyota Robotics. Funded January 2015 (1 Year). $190,000. UMBC.
- **Co-Principal Investigator:** "Exploring Ultra-Mobile Navigation Aids for Blind People." Toyota Robotics. Co-Principal Investigator: Shaun Kane. Funded January 2014 (1 Year). $190,000. UMBC.
- **Co-Principal Investigator:** "Exploring Ultra-Mobile Navigation Aids for Blind People." Toyota Robotics. Co-Principal Investigator: Shaun Kane. Funded January 2013 (1 Year). $189,400. UMBC.
- **Co-Principal Investigator:** "Software Engineering Innovation Foundation Award." Microsoft Research. Co-Principal Investigator: Shaun Kane. Funded 2013. $25,000. UMBC.
- **Co-Principal Investigator:** "University Cooperation Funding." Nokia Research.
  Co-Principal Investigator: Shaun Kane. Funded 2013. $11,450. UMBC.

Other External Research Funding

- **Principal Investigator:** "Designing DIY Assistive Technologies for Older Adults." NSF ERC: Quality of Life Technology Center at Carnegie Mellon University (an Engineering Research Center Funded through the National Science Foundation). Funded August 2013 (1 year). $30,000. UMBC.
- **Principal Investigator:** "Designing DIY Assistive Technologies for Older Adults." NSF ERC: Quality of Life Technology Center at Carnegie Mellon University (an Engineering Research Center Funded through the National Science Foundation). Funded August 2012 (1 year). $40,977. UMBC.

External Support for Student Research and Training

- **Principal Investigator:** "DREU: Distributed Research Experience for Undergraduates". Computing Research Association – Women (CRA-W) and Access Computing. Funded May, 2019 (3 months, 1 student). $6,000. **NYU.**
- **Principal Investigator:** "DREU: Distributed Research Experience for Undergraduates". Computing Research Association – Women (CRA-W). Funded May, 2017 (3 months, 1 student). $6,000. UMBC.
- **Faculty Advisor:** "CREU: Collaborative Research Experience for Undergraduates. Applications of 3D Printing and 3D Design Software in the Design of AT." Computing Research Association – Women (CRA-W). Undergraduate Student Lead: Samantha McDonald. Funded August 2015 (1 year). $6,000. UMBC.
- **Principal Investigator:** "DREU: Distributed Research Experience for Undergraduates". Computing Research Association – Women (CRA-W). Funded May, 2012 (3 months, 2 students). $12,000. UMBC.
- **Principal Investigator:** "DREU: Distributed Research Experience for Undergraduates". Computing Research Association – Women (CRA-W). Funded May, 2011 (3 months, 2 students). $12,000. UMBC.
- **Co-Principal Investigator:** "Introducing High School Students with Disabilities to a Four-Year College". Access Computing. Co-Principal Investigators: Ravi Kuber, Shaun Kane. Funded March 2012 (1 Year). $2,000. UMBC.

- **Faculty Advisor:** "CREU: Collaborative Research Experience for Undergraduates. Visualizations for Self-Analysis of Progress in Computer Use for People with Disabilities." Computing Research Association – Women (CRA-W). Undergraduate Student Lead: Jasmine Jones. Funded August 2011 (1 year). $6,000. UMBC.
- **Co-Principal Investigator:** "Participatory Design Workshop." Access Computing. Co-Principal Investigators: Ravi Kuber, Lisa Anthony, Sapna Prasad. Funded December 2011. $5,000. UMBC.

Internal Teaching and Research Proposals at UMBC

- **Principal Investigator:** "3D Printing and Entrepreneurship." Alex Brown Center for Entrepreneurship, Entrepreneurship Curriculum Grant. Co-Principal Investigator: Erin Buehler. Funded December 2014. $5,000.
- **Co-Principal Investigator:** "Full-Body Gesture Control for Power Wheelchair Users". Special Research Assistantship/Initiative Support (SRAIS). Co-Principal Investigator: Shaun Kane. Funded May 2013. $20,000.
- **Principal Investigator:** Undergraduate Research Assistantship Support (URAS). Funded October 2013. $1,500.
- **Principal Investigator:** "Breaking Ground: Funding for projects in IS698: Assistive Technology and Accessibility." UMBC Shriver Center. Funded July 2012. $2,300.
- **Principal Investigator:** Undergraduate Research Assistantship Support (URAS). Funded October 2011. $1,500.

Publications

Note: In my field, full papers published in the proceedings of the top-ranked, highly selective conferences are viewed as equally (if not more) important than journal articles. These are highly peer reviewed (with typical acceptance rates ranging from 15% to 30%) and are considered archival publications. Acceptance rates are indicated when they were made publicly available.
It is the convention in my field to order author names by contribution, and put the primary author's name first. My standard practice when working with students is to list the student's name(s) first, and the faculty advisor(s) last. An asterisk (*) indicates a student author, and names in italics are students who were an undergraduate at the time the research was performed.

Peer-Reviewed Journal Articles

[1] EASLEY*, W., HAMIDI, F., LUTTERS, W. G., AND HURST, A. Shifting expectations: Understanding youth employees' handoffs in a 3d print shop. *Proc. ACM Hum.-Comput. Interact. 2*, CSCW (Nov. 2018), 47:1–47:23.

[2] WILLIAMS*, M., *Dubin*, B*, *Amaefule*, C*, *Nguyen*, L*, ABDOLRAHMANI*, A., GALBRAITH*, C., HURST, A., AND KANE, S. Better supporting blind pedestrians and blind navigation technologies through accessible architecture. In *Designing Around People* (2016), Springer International Publishing, pp. 237–246.

[3] BUEHLER*, ERIN, E., *Comrie*, N.*, *Hofmann*, M.*, *McDonald*, S.*, AND HURST, A. Investigating the implications of 3d printing in special education. *ACM Trans. Access. Comput. 8*, 3 (Mar. 2016), 11:1–11:28.

[4] CARRINGTON*, P., *Chang*, J.*, *Chang*, K.*, *Hornback*, C.*, HURST, A., AND KANE, S. K. The gest-rest family: Exploring input possibilities for wheelchair armrests. *ACM Trans. Access. Comput. 8*, 3 (Apr. 2016), 12:1–12:24.

[5] HURST, A., HUDSON, S. E., MANKOFF, J., AND TREWIN, S. Distinguishing users by pointing performance in laboratory and real-world tasks. *ACM Transactions on Accessible Computing (TACCESS) 5*, 2 (October 2013), 5:1–5:27.

[6] BURTON*, M., NEYLAN, C., AND HURST, A. Vision required: The limitations fashion presents to those with vision impairments. *Fashion Practice 5*, 1 (May 2013), 81–106.

[7] SZYMANSKI, M. H., AOKI, P. M., GRINTER, R. E., HURST, A., THORNTON, J. D., AND WOODRUFF, A. Sotto voce: Facilitating social learning in a historic house. *Computer Supported Cooperative Work 17*, 1 (Feb. 2008), 5–34.

[8] ZIMMERMAN, J., HURST, A., AND PEETERS, M. Fabric-circle-slider: Prototype exploring the interaction aesthetic of contextual integration. *Knowledge, Technology & Policy 20*, 1 (2007), 51–57.

[9] STARNER, T., LEIBE, B., MINNEN, D., WESTYN, T., HURST, A., AND WEEKS, J. The perceptive workbench: Computer-vision-based gesture tracking, object tracking, and 3d reconstruction for augmented desks. *Machine Vision and Applications 14*, 1 (2003), 59–71.

Book Chapters

[1] HURST, A. Fabrication, 3d printing, and making. In *Web Accessibility: A Foundation for Research*, Y. Yesilada and S. Harper, Eds. Springer London, London, 2019, pp. 755–776.

Peer-Reviewed Conference Proceedings

[1] HAMIDI, F., PONERES, K., MASSEY, A., AND HURST, A. Using a participatory activities toolkit to elicit privacy expectations of adaptive assistive technologies. In *Proceedings of the 17th International Web for All Conference* (New York, NY, USA, 2020), W4A '20, Association for Computing Machinery.

[2] RACE, L., KEARNEY-VOLPE, C., FLEET, C., MIELE, J. A., IGOE, T., AND HURST, A. Designing educational materials for a blind arduino workshop. In *Extended Abstracts of the 2020 CHI Conference on Human Factors in Computing Systems* (New York, NY, USA, 2020), CHI EA '20, Association for Computing Machinery, pp. 1–7. Poster.

[3] KEARNEY-VOLPE, C., KLETENIK, D., SONKA, K., STURM, D., AND HURST, A. Evaluating instructor strategy and student learning through digital accessibility course enhancements. In *The 21st International ACM SIGACCESS Conference on Computers and Accessibility* (New York, NY, USA, 2019), ASSETS '19, Association for Computing Machinery, pp. 377–388.

[4] KEARNEY-VOLPE*, C., HURST, A., AND FITZGERALD, S. Blind web development training at oysters and pearls technology camp in uganda. In *Proceedings of the 16th Web For All 2019 Personalization - Personalizing the Web* (New York, NY, USA, 2019), W4A '19, ACM, pp. 18:1–18:10. Paper Acceptance Rate 42%.

[5] KEARNEY-VOLPE*, C., HOLLOWAY*, S., AND HURST, A. Entertainment for all: Understanding media streaming accessibility. In *Extended Abstracts of the 2019 CHI Conference on Human Factors in Computing Systems* (New York, NY, USA, 2019), CHI EA '19, ACM, pp. LBW0184:1–LBW0184:6. Paper acceptance rate 42.2%.

[6] HAMIDI, F., KUMAR, S., DORFMAN, M., OJO, F., KOTTAPALLI, M., AND HURST, A. Sensebox: A diy prototyping platform to create audio interfaces for therapy. In *Proceedings of the Thirteenth International Conference on Tangible, Embedded, and Embodied Interaction* (New York, NY, USA, 2019), TEI '19, ACM, pp. 25–34. Paper acceptance rate 33%.

[7] PAYNE, W., XU, A., HURST, A., AND RUTHMANN, S. A. Non-visual beats: Redesigning the groove pizza. In *The 21st International ACM SIGACCESS Conference on Computers and Accessibility* (New York, NY, USA, 2019), ASSETS '19, Association for Computing Machinery, pp. 651–654.

[8] RACE, L., FLEET, C., MIELE, J. A., IGOE, T., AND HURST, A. Designing tactile schematics: Improving electronic circuit accessibility. In *The 21st International ACM SIGACCESS Conference on Computers and Accessibility* (New York, NY, USA, 2019), ASSETS '19, Association for Computing Machinery, pp. 581–583.

[9] HAMIDI, F., PONERES*, K., MASSEY, A., AND HURST, A. Who should have access to my pointing data?: Privacy tradeoffs of adaptive assistive technologies. In *Proceedings of the 20th International ACM SIGACCESS Conference on Computers and Accessibility* (New York, NY, USA, 2018), ASSETS '18, ACM, pp. 203–216. Paper acceptance rate 26%.

[10] HAMIDI, F., EASLEY*, W., GRIMES, S., GRIMES, S., AND HURST, A. Youth attitudes towards assessment tools in after-school informal learning and employment training programs. In *2018 ASEE Annual Conference & Exposition* (2018).

[11] MARTIN-HAMMOND, A., HAMIDI, F., BHALERAO*, T., *Ortega*, C.*, ALI*, A., *Hornback*, C.*, *Means*, C.*, AND HURST, A. Designing an adaptive web navigation interface for users with variable pointing performance. In *Proceedings of the Internet of Accessible Things* (New York, NY, USA, 2018), W4A '18, ACM, pp. 31:1–31:10. Paper acceptance rate 58%.

[12] PONERES*, K., HAMIDI, F., MASSEY, A., AND HURST, A. Using icons to communicate privacy characteristics of adaptive assistive technologies. In *Proceedings of the 20th International ACM SIGACCESS Conference on Computers and Accessibility* (New York, NY, USA, 2018), ASSETS '18, ACM, pp. 388–390. Poster.

[13] EASLEY*, W., MCCOY, D., GRIMES, S., GRIMES, S., HAMIDI, F., LUTTERS, W. G., AND HURST, A. Understanding how youth employees use slack. In *Companion of the 2018 ACM Conference on Computer Supported Cooperative Work and Social Computing* (New York, NY, USA, 2018), CSCW '18, ACM, pp. 221–224. Poster.

[14] CARRINGTON*, P., *Ketter*, D.*, AND HURST, A. Understanding fatigue and stamina management opportunities and challenges in wheelchair basketball. In *Proceedings of the 19th International ACM SIGACCESS Conference on Computers and Accessibility* (New York, NY, USA, 2017), ASSETS '17, ACM, pp. 130–139. Paper acceptance rate 22%.

[15] BRANHAM, S. M., ABDOLRAHMANI*, A., EASLEY*, W., SCHEUERMAN*, M., *Ronquillo*, E,*, AND HURST, A. "is someone there? do they have a gun": How visual information about others can improve personal safety management for blind individuals. In *Proceedings of the 19th International ACM SIGACCESS Conference on Computers and Accessibility* (New York, NY, USA, 2017), ASSETS '17, ACM, pp. 260–269. Paper acceptance rate 22%.

[16] ABDOLRAHMANI*, A., EASLEY*, W., WILLIAMS*, M., BRANHAM, S., AND HURST, A. Embracing errors: Examining how context of use impacts blind individuals' acceptance of navigation aid errors. In *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems* (New York, NY, USA, 2017), CHI '17, ACM, pp. 4158–4169. Paper acceptance rate 25%.

[17] EASLEY*, W., BUEHLER*, E., *Salib*, G.*, AND HURST, A. Fabricating engagement: Benefits and challenges of using 3d printing to engage underrepresented students in stem learning. In *2017 ASEE Annual Conference & Exposition* (2017).

[18] HURST, A., GRIMES, S., MCCOY, D., *Carter*, N.*, EASLEY*, W., HAMIDI, F., AND *Salib*, G.* Lessons learned creating youth jobs in an afterschool maker space. In *2017 ASEE Annual Conference & Exposition* (2017). Poster.

[19] HAMIDI, F., GRIMES, S., GRIMES, S., WONG*, C., AND HURST, A. Assessment tools for an afterschool youth maker program. In *Proceedings of the 7th Annual Conference on Creativity and Fabrication in Education* (New York, NY, USA, 2017), FabLearn '17, ACM, pp. 12:1–12:4.

[20] MARTIN-HAMMOND, A., HAMIDI, F., BHALERAO*, T., ALI*, A., *Hornback*, C.*, *Means*, C.*, AND HURST, A. The participatory design of an adaptive interface to support users with changing pointing ability. In *Proceedings of the 19th International ACM SIGACCESS Conference on Computers and Accessibility* (New York, NY, USA, 2017), ASSETS '17, ACM, pp. 343–344. Poster.

[21] SCHEUERMAN*, M. K., EASLEY*, W., ABDOLRAHMANI*, A., HURST, A., AND BRANHAM, S. Learning the language: The importance of studying written directions in designing navigational technologies for the blind. In *Proceedings of the 2016 CHI Conference Extended Abstracts on Human Factors in Computing Systems* (New York, NY, USA, 2017), CHI EA '17, ACM, pp. 2922–2928. Extend Abstracts acceptance rate 20%.

[22] *McDonald*, S.*, *Comrie*, N.*, BUEHLER*, E., *Carter*, N.*, *Dubin*, B.*, GORDES, K., MCCOMBE-WALLER, S., AND HURST, A. Uncovering challenges and opportunities for 3d printing assistive technology with physical therapists. In *Proceedings of the 18th International ACM SIGACCESS Conference on Computers and Accessibility* (New York, NY, USA, 2016), ASSETS '16, ACM, pp. 131–139. Paper acceptance rate 25% **(Best Student Paper Award)**.

[23] BUEHLER*, E., EASLEY*, W., POOLE*, A., AND HURST, A. Accessibility barriers to online education for young adults with intellectual disabilities accessibility barriers to online education for young adults with intellectual disabilities. In *W4a* (2016).

[24] ABDOLRAHMANI*, A., HURST, A., AND KUBER, R. An empirical investigation of the situationally-induced impairments experienced by blind mobile device users an empirical investigation of the situationally-induced impairments experienced by blind mobile device users. In *W4a* (2016).

[25] EASLEY*, W., WILLIAMS*, M. A., ABDOLRAHMANI*, A., GALBRAITH*, C., BRANHAM, S., HURST, A., AND KANE, S. Let's get lost: Exploring social norms in predominately blind environments. In *Proceedings of*

the 2016 CHI Conference Extended Abstracts on Human Factors in Computing Systems (New York, NY, USA, 2016), CHI EA '16, ACM, pp. 2034–2040. Extended Abstracts 20

[26] ABDOLRAHMANI*, A., EASLEY*, W., WILLIAMS, M. A., *Ronquillo*, E.*, BRANHAM, S., CHEN, T., AND HURST, A. Not all errors are created equal: Factors that impact acceptance of an indoor navigation aid for the blind. In *Proceedings of the 18th International ACM SIGACCESS Conference on Computers and Accessibility* (New York, NY, USA, 2016), ASSETS '16, ACM, pp. 301–302. Poster.

[27] MARTIN-HAMMOND, A., ALI*, A., *Means*, C.*, *Hornback*, C.*, AND HURST, A. Supporting awareness of pointing behavior among diverse groups. In *Proceedings of the 10th EAI International Conference on Pervasive Computing Technologies for Healthcare* (ICST, Brussels, Belgium, Belgium, 2016), PervasiveHealth '16, ICST (Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering), pp. 231–234. Poster.

[28] BUEHLER*, E., BRANHAM, S., ALI*, A., *Chang*, J.*, *Hofmann*, M.*, HURST, A., AND KANE, S. K. Sharing is caring: Assistive technology designs on thingiverse. In *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems* (New York, NY, USA, 2015), CHI '15, ACM, pp. 525–534. Paper acceptance rate 25% **(Best Paper Award)**.

[29] BUEHLER*, E., EASLEY*, W., *McDonald*, S.*, *Comrie*, N.*, AND HURST, A. Inclusion and education: 3d printing for integrated classrooms. In *Proceedings of the 17th International ACM SIGACCESS Conference on Computers & Accessibility* (2015), ASSETS '15, pp. 281–290.

[30] CARRINGTON*, P., *Chang*, K.*, MENTIS, H., AND HURST, A. "but i don't take steps": Examining the inaccessibility of fitness trackers for wheelchair athletes. In *Proceedings of the 17th International ACM SIGACCESS Conference on Computers & Accessibility* (2015), ASSETS '15, pp. 193–201. Paper acceptance rate 24%.

[31] BUEHLER*, E., GRIMES, S., GRIMES, S., AND HURST, A. Investigating 3d printing education with youth designers and adult educators. In *Fab Learn* (2015). Poster.

[32] MARTIN-HAMMOND*, A., ALI*, A., *Hornback*, C.*, AND HURST, A. Understanding design considerations for adaptive user interfaces for accessible pointing with older and younger adults. In *Proceedings of the 12th Web for All Conference* (New York, NY, USA, 2015), W4A '15, ACM, pp. 19:1–19:10. Paper acceptance rate 35% **(Best Paper Candidate)**.

[33] WILLIAMS*, M. A., BUEHLER*, E., HURST, A., AND KANE, S. K. What not to wearable: Using participatory workshops to explore wearable device form factors for blind users. In *Proceedings of the 12th Web for All Conference* (New York, NY, USA, 2015), W4A '15, ACM, pp. 31:1–31:4. Paper acceptance rate 35%.

[34] CARRINGTON*, P., HOSMER*, S., HURST, A., YEH, T., AND KANE, S. "like this, but better": Supporting novices' design and fabrication of 3d models using existing objects. In *iConference '15: Proceedings of the 2015 iConference* (2015). Paper acceptance rate 36%.

[35] BUEHLER*, E., KANE, S. K., AND HURST, A. Abc and 3d: Opportunities and obstacles to 3d printing in special education environments. In *Proceedings of the 16th International ACM SIGACCESS Conference on Computers & Accessibility* (New York, NY, USA, 2014), ASSETS '14, ACM, pp. 107–114. Paper acceptance rate 26%.

[36] CARRINGTON*, P., HURST, A., AND KANE, S. K. The gest-rest: A pressure-sensitive chairable input pad for power wheelchair armrests. In *Proceedings of the 16th International ACM SIGACCESS Conference on Computers & Accessibility* (New York, NY, USA, 2014), ASSETS '14, ACM, pp. 201–208. Paper acceptance rate 26%.

[37] WILLIAMS*, M. A., GALBRAITH*, C., KANE, S. K., AND HURST, A. "just let the cane hit it": How the blind and sighted see navigation differently. In *Proceedings of the 16th International ACM SIGACCESS Conference on Computers & Accessibility* (New York, NY, USA, 2014), ASSETS '14, ACM, pp. 217–224. Paper acceptance rate 26%.

[38] BUEHLER*, E., HURST, A., AND *Hofmann*, M.* Coming to grips: 3d printing for accessibility. In *Proceedings of the 16th International ACM SIGACCESS Conference on Computers & Accessibility* (New York, NY, USA, 2014), ASSETS '14, ACM, pp. 291–292. Poster.

[39] CALVO*, R., KANE, S. K., AND HURST, A. Evaluating the accessibility of crowdsourcing tasks on amazon's mechanical turk. In *Proceedings of the 16th International ACM SIGACCESS Conference on Computers & Accessibility* (New York, NY, USA, 2014), ASSETS '14, ACM, pp. 257–258. Poster.

[40] *McDonald*, S.*, *Dutterer*, J.*, ABDOLRAHMANI*, A., KANE, S. K., AND HURST, A. Tactile aids for visually impaired graphical design education. In *Proceedings of the 16th International ACM SIGACCESS Conference on Computers & Accessibility* (New York, NY, USA, 2014), ASSETS '14, ACM, pp. 275–276. Poster.

[41] IRWIN*, G., BANERJEE, N., HURST, A., AND ROLLINS, S. Understanding context governing energy consumption in homes. In *CHI '14 Extended Abstracts on Human Factors in Computing Systems* (New York, NY, USA, 2014), CHI EA '14, ACM, pp. 2443–2448. Poster.

[42] SAID*, K., WILLIAMS*, M. A., HURST, A., AND KANE, S. K. Framing the conversation: The role of facebook conversations in shopping for eyeglasses. In *Proceedings of the 17th ACM Conference on Computer Supported Cooperative Work & Social Computing* (New York, NY, USA, 2014), CSCW '14, ACM, pp. 652–661. Paper acceptance rate 27%.

[43] SHEWBRIDGE*, R., HURST, A., AND KANE, S. K. Everyday making: Identifying future uses for 3d printing in the home. In *Proceedings of the 2014 Conference on Designing Interactive Systems* (New York, NY, USA, 2014), DIS '14, ACM, pp. 815–824. Paper acceptance rate 27%.

[44] CARRINGTON*, P., HURST, A., AND KANE, S. K. Wearables and chairables: Inclusive design of mobile input and output techniques for power wheelchair users. In *Proceedings of the 32nd Annual ACM Conference on Human Factors in Computing Systems* (New York, NY, USA, 2014), CHI '14, ACM, pp. 3103–3112. Paper acceptance rate 23% **(Best Paper Honorable Mention)**.

[45] CARRINGTON*, P., HURST, A., AND KANE, S. K. How power wheelchair users choose computing devices. In *Proceedings of the 15th International ACM SIGACCESS Conference on Computers and Accessibility* (New York, NY, USA, 2013), ASSETS '13, ACM, pp. 52:1–52:2. Poster.

[46] WILLIAMS*, M. A., HURST, A., AND KANE, S. K. "pray before you step out": Describing personal and situational blind navigation behaviors. In *Proceedings of the 15th International ACM SIGACCESS Conference on Computers and Accessibility* (New York, NY, USA, 2013), ASSETS '13, ACM, pp. 28:1–28:8. Paper acceptance rate 29%.

[47] WILLIAMS*, M. A., *Ringland*, K.*, AND HURST, A. Designing an accessible clothing tag system for people with vision impairments. In *Proceedings of the 15th International ACM SIGACCESS Conference on Computers and Accessibility* (New York, NY, USA, 2013), ASSETS '13, ACM, pp. 46:1–46:2. Poster.

[48] CARRINGTON*, P., KUBER, R., ANTHONY, L., HURST, A., AND PRASAD, S. Developing an interface to support procedural memory training using a participatory-based approach. In *Proceedings of the 26th Annual BCS Interaction Specialist Group Conference on People and Computers* (Swinton, UK, 2012), BCS-HCI '12, British Computer Society, pp. 333–338.

[49] BURTON*, M. A., BRADY*, E., BREWER*, R., NEYLAN, C., BIGHAM, J. P., AND HURST, A. Crowdsourcing subjective fashion advice using vizwiz: challenges and opportunities. In *Proceedings of the 14th international ACM SIGACCESS conference on Computers and accessibility* (New York, NY, USA, 2012), ASSETS '12, ACM, pp. 135–142. Paper acceptance rate 28%.

[50] *Jones*, J.*, *Hall*, S.*, GENTIS*, M., REYNOLDS*, C., *Gadwal*, C.*, HURST, A., RONCH, J., AND NEYLAN, C. Visualizations for self-reflection on mouse pointer performance for older adults. In *Proceedings of the 14th international ACM SIGACCESS conference on Computers and accessibility* (New York, NY, USA, 2012), ASSETS '12, ACM, pp. 287–288. Poster.

[51] ANTHONY, L., PRASAD, S., HURST, A., AND KUBER, R. A participatory design workshop on accessible apps and games with students with learning differences. In *Proceedings of the 14th international ACM SIGACCESS conference on Computers and accessibility* (New York, NY, USA, 2012), ASSETS '12, ACM, pp. 253–254. Poster.

[52] *Brown*, C.*, AND HURST, A. Viztouch: automatically generated tactile visualizations of coordinate spaces. In *Proceedings of the Sixth International Conference on Tangible, Embedded and Embodied Interaction* (New York, NY, USA, 2012), TEI '12, ACM, pp. 131–138. Paper acceptance rate 23%.

[53] HURST, A., AND TOBIAS*, J. Empowering individuals with do-it-yourself assistive technology. In *The proceedings of the 13th international ACM SIGACCESS conference on Computers and accessibility* (New York, NY, USA, 2011), ASSETS '11, ACM, pp. 11–18. Paper acceptance rate 23%.

[54] HURST, A., HUDSON, S. E., AND MANKOFF, J. Automatically identifying targets users interact with during real world tasks. In *Proceedings of the 15th international conference on Intelligent user interfaces* (New York, NY, USA, 2010), IUI '10, ACM, pp. 11–20. Paper acceptance rate 22%.

[55] HURST, A., MANKOFF, J., AND HUDSON, S. E. Understanding pointing problems in real world computing environments. In *Proceedings of the 10th international ACM SIGACCESS conference on Computers and accessibility* (New York, NY, USA, 2008), Assets '08, ACM, pp. 43–50. Paper acceptance rate 37%.

[56] HURST, A., HUDSON, S. E., MANKOFF, J., AND TREWIN, S. Automatically detecting pointing performance. In *Proceedings of the 13th international conference on Intelligent user interfaces* (New York, NY, USA, 2008), IUI '08, ACM, pp. 11–19. Paper acceptance rate 15%.

[57] HURST, A., HUDSON, S. E., AND MANKOFF, J. Dynamic detection of novice vs. skilled use without a task model. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (New York, NY, USA, 2007), CHI '07, ACM, pp. 271–280. Paper acceptance rate 36%.

[58] HURST, A., MANKOFF, J., DEY, A. K., AND HUDSON, S. E. Dirty desktops: using a patina of magnetic mouse dust to make common interactor targets easier to select. In *Proceedings of the 20th annual ACM symposium on User interface software and technology* (New York, NY, USA, 2007), UIST '07, ACM, pp. 183–186. Paper acceptance rate 20%.

[59] CARTER, S., HURST, A., MANKOFF, J., AND LI, J. Dynamically adapting guis to diverse input devices. In *Proceedings of the 8th international ACM SIGACCESS conference on Computers and accessibility* (New York, NY, USA, 2006), Assets '06, ACM, pp. 63–70. Paper acceptance rate 35%.

[60] FORLIZZI, J., DISALVO, C., ZIMMERMAN, J., MUTLU, B., AND HURST, A. The sensechair: the lounge chair as an intelligent assistive device for elders. In *Proceedings of the 2005 conference on Designing for User eXperience* (New York, NY, USA, 2005), DUX '05, AIGA: American Institute of Graphic Arts.

[61] HURST, A., ZIMERMAN, J., AND PEETERS, M. Fabric-circle-slider: Prototype exploring the interaction aesthetic of contextual integration. In *Designing Pleasurable Products and Interfaces* (2005), DPPI '05, pp. 272–282.

[62] HURST, A., ZIMMERMAN, J., ATKESON, C., AND FORLIZZI, J. The sense lounger: establishing a ubicomp beachhead in elders' homes. In *CHI '05 Extended Abstracts on Human Factors in Computing Systems* (New York, NY, USA, 2005), CHI EA '05, ACM, pp. 1467–1470. Poster.

[63] JAFARINAIMI, N., FORLIZZI, J., HURST, A., AND ZIMMERMAN, J. Breakaway: an ambient display designed to change human behavior. In *CHI '05 Extended Abstracts on Human Factors in Computing Systems* (New York, NY, USA, 2005), CHI EA '05, ACM, pp. 1945–1948. Paper acceptance rate 25%.

[64] HOLSTIUS, D., KEMBEL, J., HURST, A., WAN, P.-H., AND FORLIZZI, J. Infotropism: living and robotic plants as interactive displays. In *Proceedings of the 5th conference on Designing interactive systems: processes, practices, methods, and techniques* (New York, NY, USA, 2004), DIS '04, ACM, pp. 215–221. Paper acceptance rate 24%.

[65] WOODRUFF, A., AOKI, P., GRINTER, R., HURST, A., SZYMANSKI, M., AND THORNTON, J. Eavesdropping on electronic guidebooks: Observing learning resources in shared listening environments. In *Proc. 6th Int'l Conf. on Museums and the Web (MW)* (2002), pp. 21–30.

[66] GRINTER, R. E., AOKI, P. M., SZYMANSKI, M. H., THORNTON, J. D., WOODRUFF, A., AND HURST, A. Revisiting the visit: understanding how technology can shape the museum visit. In *Proceedings of the 2002 ACM conference on Computer supported cooperative work* (New York, NY, USA, 2002), CSCW '02, ACM, pp. 146–155. Paper acceptance rate 20%.

[67] AOKI, P. M., GRINTER, R. E., HURST, A., SZYMANSKI, M. H., THORNTON, J. D., AND WOODRUFF, A. Sotto voce: exploring the interplay of conversation and mobile audio spaces. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (New York, NY, USA, 2002), CHI '02, ACM, pp. 431–438. Paper acceptance rate 32%.

[68] WOODRUFF, A., AOKI, P., HURST, A., AND SZYMANSKI, M. Electronic guidebooks and visitor attention. In *Proceedings of 6th International Cultural Heritage Informatics Meeting (ICHIM)* (2001), vol. 1, pp. 437–454.

[69] WOODRUFF, A., AOKI, P. M., HURST, A., AND SZYMANSKI, M. H. The guidebook, the friend, and the room: visitor experience in a historic house. In *CHI '01 Extended Abstracts on Human Factors in Computing Systems* (New York, NY, USA, 2001), CHI EA '01, ACM, pp. 273–274. Paper acceptance rate 24%.

[70] AOKI, P. M., HURST, A., AND WOODRUFF, A. Tap tips: lightweight discovery of touchscreen targets. In *CHI '01 Extended Abstracts on Human Factors in Computing Systems* (New York, NY, USA, 2001), CHI EA '01, ACM, pp. 237–238. Paper acceptance rate 24%.

[71] WOODRUFF, A., SZYMANSKI, M. H., AOKI, P. M., AND HURST, A. The conversational role of electronic guidebooks. In *Proceedings of the 3rd international conference on Ubiquitous Computing* (London, UK, UK, 2001), UbiComp '01, Springer-Verlag, pp. 187–208. Paper acceptance rate 15.5%.

Editorial Reviewed Works

[1] MANKOFF, J., HOFMANN, M., CHEN, X. A., HUDSON, S. E., HURST, A., AND KIM, J. Consumer-grade fabrication and its potential to revolutionize accessibility. *Commun. ACM 62*, 10 (Sept. 2019), 64–75.

[2] KANE, S. K., HURST, A., BUEHLER*, E., CARRINGTON*, P. A., AND WILLIAMS*, M. A. Collaboratively designing assistive technology. *interactions 21*, 2 (Mar. 2014), 78–81.

[3] GAJOS, K. Z., HURST, A., AND FINDLATER, L. Personalized dynamic accessibility. *interactions 19*, 2 (Mar. 2012), 69–73.

[4] HURST, A. Automatic assessment and adaptation to real world pointing performance. *SIGACCESS Accessible Computing 93* (Jan. 2009), 4–10.

Workshops

[1] OḰANE, A. A., HURST, A., NIEZEN, G., MARQUARDT, N., BIRD, J., AND ABOWD, G. Advances in diy health and wellbeing. In *Proceedings of the 2016 CHI Conference Extended Abstracts on Human Factors in Computing Systems* (New York, NY, USA, 2016), CHI EA '16, ACM, pp. 3453–3460.

[2] IRWIN*, G., BANERJEE, N., ROLLINS, S., AND HURST, A. Understanding contextual factors in home energy user. In *PerEnergy: First IEEE Workshop on Pervasive Energy Services* (2015).

[3] HURST, A., AND KANE, S. Making "making" accessible. In *Proceedings of the 12th International Conference on Interaction Design and Children* (New York, NY, USA, 2013), IDC '13, ACM, pp. 635–638. (**Best Workshop Paper Award Winner**).

[4] HURST, A., MANKOFF, J., AND HUDSON, S. E. Collecting longitudinal performance data from individuals with limited physical abilities. In *Theories, methods and case studies of longitudinal HCI research Workshop at CM SIGCHI Conference on Human Factors in Computing Systems (CHI)* (2012), ACM.

[5] BURTON*, M., BESER*, J., NEYLAN, C., AND HURST, A. Making fashion accessible for people with vision impairments. In *Frontiers in Accessibility for Pervasive Computing Workshop at Pervasive* (2012), ACM.

[6] ANTHONY, L., HURST, A., KANE, S., ALLIN, S., FINDLATER, L., AND GROVES, K. Accessibility in the ischools: Not just for people with disabilities? In *Fishbowl at 2012 iConference* (2012).

[7] HURST, A., GAJOS, K., FINDLATER, L., WOBBROCK, J., SEARS, A., AND TREWIN, S. Dynamic accessibility: accommodating differences in ability and situation. In *CHI '11 Extended Abstracts on Human Factors in Computing Systems* (New York, NY, USA, 2011), CHI EA '11, ACM, pp. 41–44. Organizer.

[8] HURST, A., AND ZIMERMAN, J. Evaluating a fabric device controller. In *Innovative Approaches to Evaluating Affective Interfaces Workshop at the Conference on Human Factors in Computing Systems* (2005), ACM.

Peer-Reviewed Presentations

[1] GORDES, K., GRIMES, S., HURST, A., LATZ, R., AND MCCOMBE WALLER, S. Using 3d printing in physical therapy: Competitive advantage and improved care. In *Educational session at Combined Sections Meeting of the American Physical Therapy Association, Washington D.C.* (2019).

[2] LOBO, M., LASKO, J., WILCOMM, T., AND HURST, A. Real world rehabilitation technology: Development, dissemination, and research. In *Educational session at Combined Sections Meeting of the American Physical Therapy Association, New Orleans* (2018).

Press and Blog Mentions

[1] BALDINO, L. 3d technology - what are we waiting for? Baltmore Sun Education Section, July 8th 2018. http://marketplace.baltimoresun.com/baltimore-md-features/special-section/Education/07-08-2018/Page-1#.

[2] O'BRIAN, M., AND TOBIN, K. Researchers gauge impact of "maker" job opportunities for underserved teens, 2017. https://www.nsf.gov/news/special_reports/science_nation/makerjobs.jsp?WT.mc_id=USNSF_51.

[3] HANKS, M. Umbc's amy hurst and william easley connect with baltimore teens through 3d printing makerspace. UMBC News, September 2017. http://news.umbc.edu/umbcs-amy-hurst-and-william-easley-connect-baltimore-youth-with-new-opportunities-at-digital-harbor-foundation-3d-printing-makerspace/.

[4] BATES, S. Enabling the future of making. NSF.gov, June 2016. https://www.nsf.gov/news/news_summ.jsp?cntn_id=138994.

[5] DENT, S. Science fund lets kids learn 3d printing, gene modification. Engadget.com, June 2016. https://www.engadget.com/2016/06/23/nsf-maker-science-fund/.

[6] COLDEWEY, D. National science foundation allots $1.5m to kid-focused maker projects. TechCrunch.com, June 2016. https://techcrunch.com/2016/06/22/national-science-foundation-allots-1-5m-to-kid-focused-maker-projects/.

[7] DUBROW, A. Democratizing the maker movement. HuffingtonPost.com, 2015. http://www.huffingtonpost.com/aaron-dubrow/democratizing-the-maker-m_b_7960540.html.

[8] DUBROW, A. Making the maker movement accessible. NSF.gov, 2015. https://www.nsf.gov/discoveries/disc_summ.jsp?cntn_id=135608.

[9] NOURBAKHSH, I. Make for humanity. Huffington Post, 2015. http://www.huffingtonpost.com/illah-Nourbakhsh/make-for-humanity_b_7681562.html.

[10] NSF. New paths to innovation and learning through diy technologies. NSF.gov, 2015. https://www.nsf.gov/news/news_summ.jsp?cntn_id=135397.

[11] 198-piece 3d printed 'distributed ben franklin' puzzle is done. 3Ders, 2014. http://www.3ders.org/articles/20140916-198-piece-3d-printed-ben-franklin-puzzle-is-done.html.

[12] MOLITCH-HOU, M. In order to form a more perfect union: a crowdsourced 3d printed ben franklin. 3D Printing Industry, 2014. http://3dprintingindustry.com/2014/08/09/order-form-perfect-union-crowdsourced-3d-printed-ben-franklin/.

[13] DOUGHERTY, D. Joe olson's diy-enabled wheelchair. Makezine Blog, 2014. http://makezine.com/2014/07/08/joe-olsons-diy-enabled-wheelchair/.

[14] MASTERSON, K. Launch pad. UMBC Magazine, Winter 2014. http://umbcmagazine.wordpress.com/umbc-magazine-winter-2014/launch-pad/.

[15] EASTMAN, E. College program for disabled students a big success. written by Capital News Service, published in LA Times, and Chicago Tribune, October 31, 2013. http://cnsmaryland.org/2013/10/31/college-program-for-disabled-students-a-big-success/.

[16] From ada lovelace to marissa mayer: The rise of women in tech. Adafruit Industries Blog, October 16, 2012. https://www.adafruit.com/blog/2012/10/16/ald12-findingada-amy-hurst/.

[17] Maker faire nyc: Human centered computing. Tie and Jeans Blog, October 1, 2012. http://tieandjeans.wordpress.com/2012/10/01/umbcc/.

[18] KIDD, C. Automatically generating tactile visualizations of coordinate spaces using 3d printers. MDTAP Blog, July 30, 2012. http://www.equipmentlink.org/blog/?p=1108.

[19] 3d printing applications benefit the disabled. Printware News, March 7, 2012. http://www.printware.co.uk/Blog/113/3D-Printing-Applications-Benefit-the-Disabled.html.

[20] WINNICK, D. Gray new world. UMBC Magazine, Summer 2012. http://umbcmagazine.wordpress.com/current-issue-summer-2012/gray-new-world/.

[21] METS, M. Nickel for scale. Makezine Blog, 2011. http://makezine.com/2011/01/13/nickel-for-scale/.

Invited Presentations

Note: The publications listed above as conference or workshop papers were presented at the event, either by myself or a co-author.

- Panelist, Smithsonian Digitization Conference: Accessibility Panel, October 2019.
- Featured Speaker, inside / outside: a symposium on digital Design, Hosted by NYU Makerspace and Ultimaker, August 2019.
- Featured Speaker, Construct 3D, October 2018.
- Panelist, "Listening as Public Practice: Towards Equity and Justice" at the UMBC Research Forum: Public Humanities and Health Justice, May 2018.
- **Keynote Speaker, Web For All Conference (W4A), April 2018.**
- Panelist, Health Science and Human Services Library Maker Expo, University of Maryland Baltimore, March 2018.
- Seminar Speaker, Seminar on People, Computers and Design, Stanford University, February 2018.
- Seminar Speaker, Computer Science Department, University of Delaware, December 2017.
- Panel Speaker, TIKTOC RERC State of the Science, October 2017.
- Seminar Speaker, Human-Computer Interaction Institute, Carnegie Mellon, November 2016.
- Seminar Speaker, Physical Therapy Department, University of Delaware, October 2016.
- **Keynote Speaker, Summer Faculty Institute, University of Delaware, May 2016.**
- **Keynote Speaker, National Robotics Institute (NRI) PI meeting, October 2015.**
- Panelist, New York Maker Faire, Building a Nation of Makers: Celebrating the Creativity, Ingenuity, and Diversity of the Maker Community, September 2015.
- Panelist, National Maker Faire, Exploring the Breadth of Making, June 2015.
- Seminar Speaker, Computer Science Department, University of Florida, March 2015.
- Seminar Speaker, GVU Brown Bag, Georgia Institute of Technology, March 2015.
- Seminar Speaker, iSchool Seminar, University of California Irvine, February 2015.
- Speaker, Human-Computer Interaction Institute 20th Anniversary Celebration, November 2014.
- Seminar Speaker, Computer Science Colloquium Talk, Carleton College, May 2014.
- Speaker, HP Labs, May 2014.
- Speaker, Career Day at Digital Harbor High School, March 2014.

- Panelist, "Maker Culture" panel at the Broadening Access and Participation in STEM Education Through Technology Symposium sponsored by AAAS and MaDTechEd, August 2013.
- Speaker, "Making Making Accessible", Maryland Libraries Maker Meetup, November 2012.
- Seminar Speaker, Computer Science Colloquium, University of Iowa, November 2012.
- Speaker, Faculty Lighting Talks, Grace Hopper Celebration of Women in Computing, October 2012.
- Moderator, "If I'd Only Known", panel at the Grace Hopper Celebration of Women in Computing, October 2012.
- Seminar Speaker, Distinguished Voices Seminar Series, National Academy of Science, Woods Hole, MA, August 2012.
- Speaker and Panelist, EdTech Forum, Baltimore, December 2011.
- Speaker, HCIL BrownBag on Tactile Graphics, November 2011.
- Panelist, Art and Code Session at Betascape, September 2011.
- Speaker, Botacon: Robots for a Better Future, New York, December 2010.

Invited Participant

- Workshop on Disability, Bias, and AI, Microsoft Research and the AI Now Institute, New York, NY. March 2019.
- Workshop on AI Fairness for People with Disabilities, IBM Research, Cambridge, MA. October 2018.
- Promoting Strategic Research on Inclusive Access to Rich Online Content and Services, Computing Community Consortium (CCC), September 2015.

Research Advising

PostDoctoral Scholars

- **Dr. Foad Hamidi**, http://foadhamidi.com/
  Spring 2016 - present, UMBC.
  Received PhD at York University in 2016.
  Assistant Professor at UMBC starting Fall 2019.
- **Dr. Aqueasha Martin Hammond**, http://aqueashamarie.com/
  Fall 2014 - Summer 2016, UMBC.
  Received PhD at Clemson University in 2014, Assistant Professor at IUPUI starting Fall 2016.

Ph.D. Students

Ph.D. Dissertation Advisor (Completed)

- **Dr. Erin Buehler**, http://erinbuehler.com/
  UX Researcher at Facebook
  Graduation date: May 2018, Human-Centered Computing, UMBC
  Thesis: Understanding Collocated Collaboration Between Young Adult Students with and without Intellectual Disabilities
- **Dr. Patrick Carrington**, http://patrickcarrington.com/
  Assistant Professor at Carnegie Mellon University
  Graduation date: December 2017, Human-Centered Computing, UMBC
  Thesis: Chairable Computing
- **Dr. Michele Williams**, https://michele-williams.com/
  Senior UX Researcher at Pearson Publishing
  Graduation date: December 2015, Human-Centered Computing, UMBC
  Thesis: Answering Subjective and Open-Ended Visual Questions from People with Vision Impairments

Ph.D. Dissertation Advisor (in-progress)

- **Claire Kearney-Volpe**, https://www.clairekv.com/
  Expected graduation: May 2020, Rehabilitation Sciences, NYU
- **William Easley**, https://www.williamberkleyeasley.com/
  Expected graduation: May 2020, Human-Centered Computing, UMBC

Ph.D. Dissertation Committee Member

- Dr. Huimin Quian, Graduation date: May 2014, Human-Centered Computing, UMBC

Thesis: Improving Access to Mobile Technologies Using Tactile Feedback.
- Rachel Grice, Graduation Date: October 2019, Human-Centered Computing, UMBC
  Thesis: A Heads-Up Display to Reduce Distraction for Locomotive Engineers.

PhD Student Independent Study (Non-thesis)
- Fall 2015 - Spring 2017, Ali Abdolrahmani, Human-Centered Computing, UMBC
- Fall 2013 - Summer 2017, Germaine Irwin, Human-Centered Computing, UMBC
- Summer 2013 - Fall 2013, Iftekhar Tanveer, Human-Centered Computing, UMBC
- Spring 2012 - Fall 2013, Rita Shewbridge, Human-Centered Computing, UMBC
- Spring 2012 - Fall 2013, Galina Madjaroff, Human-Centered Computing, UMBC
- Spring 2012, Lula Albar, Human-Centered Computing, UMBC
- Spring 2012, Robin Brewer, Human-Centered Computing, UMBC
- Spring 2012, Lola Stefanelli, Human-Centered Computing, UMBC
- Spring 2011, Rui Zhu, Human-Centered Computing, UMBC

M.S. Students

M.S. Thesis Committee Member
- Veronica Alfaro, May 2020, Interactive Telecommunications Program, NYU
  Thesis: From Needs to Customized Assistive Technology
- Lauren Race, May 2019, Interactive Telecommunications Program, NYU
  Thesis: Tactile Graphics for Electronic Schematics
- Harshita Nedunuri, May 2019, Gallatin School of Individualized Study, NYU
  Thesis: Redefining Empathy in Human-Centered Design: Mismatch as a Catalyst for Effective Perspective Making
- Kellie Gable Poneres, December 2018, Human-Centered Computing, UMBC
  Thesis: Exploring Older Adults' Attitudes Towards Privacy of Adaptive Assistive Technologies
- Morgan Scheuerman, May 2018, Human-Centered Computing, UMBC
  Thesis: Exploring Transgender Individuals? Experience of Safety with Technology
- Jasmine Tobias, May 2014, Human-Centered Computing, UMBC
  Thesis: Using Influence Principles to Determine the Persuasive Susceptibility of Online Commerce Users
- Nitin Taksande, December 2011, Information Systems, UMBC
  Thesis: Empirical Study of Technical Debt as Viewed by Software Practitioners,

M.S. Student Independent Study (Non-thesis)
- Spring 2020, Antonio M Guimaraes, Interactive Telecommunications Program, NYU.
- Fall 2019, Daborah Gorelik, Interactive Digital Media, NYU
- Fall 2019, Arnab Chakravarty, Interactive Telecommunications Program, NYU
- Summer 2 2019, Cassidy Haney, Interactive Digital Media, NYU
- Fall 2018, Margo Williams, Human-Centered Computing, UMBC
- Spring 2018, Kellie Gable, Human-Centered Computing, UMBC
- Fall 2017 - Spring 2018, Neha Kale, Human-Centered Computing, UMBC
- Fall 2017, Mark Berczynski, Information Systems, UMBC
- Spring 2017, Tejas Bhalerao, Human-Centered Computing, UMBC
- Spring 2016, Morgan Scheuerman, Human-Centered Computing, UMBC
- Spring 2015, Dhuel Fischer, Human-Centered Computing, UMBC
- Spring 2015, William Easley, Human-Centered Computing, UMBC
- Spring 2015, Hee-Ra Lee, Human-Centered Computing, UMBC
- Fall 2015 - Summer 2016, Abdullah Ali, Human-Centered Computing, UMBC
- Fall 2014, Keith Bryant, Human-Centered Computing, UMBC
- Fall 2014, Caroline Galbraith, Human-Centered Computing, UMBC
- Fall 2013, Jefreena Packlanathan, Human-Centered Computing, UMBC
- Summer 2013, Rocio Calvo, Computer Science, Universidad Carlos III
- Spring 2012, Jennifer Beser, Human-Centered Computing, UMBC
- Spring 2012, Shannon Hosmer, Human-Centered Computing, UMBC
- Spring 2012, Darya Slobodyanik, Human-Centered Computing, UMBC

- Fall 2012, Russ Jarowski, Human-Centered Computing, UMBC
- Fall 2012, Jasmine Tobias, Human-Centered Computing, UMBC
- Fall 2012, Chris Kidd, Human-Centered Computing, UMBC

Undergraduate Students

Undergraduate Capstone Projects

- **Dr. Jasmine Jones**, https://seejazzwork.com/
  Received PhD at University of Michigan, currently Assistant Professor at Berea College.
  Graduation Date: May 2012, Interdisciplinary Studies
  Capstone: Visualizations for Self-Analysis of Performance for Older Adults
- **Samatha McDonald**, http://www.samiam.info
  PhD student at University of California, Irvine
  Graduation Date: May 2016, Information Systems
  Project: Uncovering Challenges and Opportunities for 3D Printing Assistive Technology with Physical Therapists
- **Gabrielle Salib**, https://swe.umbc.edu/ gsalib1/
  PhD student at Drexel University
  Graduation Date: May 2017, Interdisciplinary Studies
  Capstone: "Making" a Difference: The Case Study of a Youth-Oriented, Community Makerspace in Downtown Baltimore.
- **Heather Mortimer** https://www.linkedin.com/in/heather-mortimer
  Graduation Date, May 2018, Interdisciplinary Studies
  Capstone: Increasing Engagement with Educational Content and Objects in Informal Learning Environments

Ongoing Undergraduate Research

- Cathy Xu, Tandon Summer Undergraduate Research Program, NYU (Integrated Digital Media), Summer 2020.
- Stella Yu, Tandon Summer Undergraduate Research Program, NYU (Electrical Engineering), Summer 2020.
- Michael Zachor, Tandon Summer Undergraduate Research Program, NYU (Integrated Digital Media), Summer 2020.
- Morgan James, Work Study, NYU (Integrated Digital Media), Fall 2019 - present.

Completed Undergraduate Research

- Paolla Bruno, Vertically Integrated Project (VIP), NYU (Integrated Digital Media), Fall 2019 - Spring 2020.
- Cindy Lee, Vertically Integrated Project (VIP), NYU (Computer Science), Spring 2020.
- Victor Yu, Vertically Integrated Project (VIP), NYU (Computer Science), Spring 2020.
- Winston Han, Vertically Integrated Project (VIP), NYU (College of Arts and Science), Summer 2019 - Fall 2019.
- Raquel Isart, Vertically Integrated Project (VIP), NYU (Business and Technology Administration), Fall 2019.
- Ethan Penha, Vertically Integrated Project (VIP), NYU (Science and Technology Studies), Fall 2019.
- Cartomou Fesaru, Tandon Summer Undergraduate Research Program, NYU (Biomolecular Science), Summer 2019.
- Prakriti Joshi, Tandon Work Study, NYU (Integrated Digital Media), Summer 2019.
- Haoran Wen, CRA-W Distributed Research Experience For Undergraduates (DREU) and Access Computing participant, Rutgers University, Summer 2019.
- Darshini Matharu, Research Assistant (NSF REU), Summer 2018 - Fall 2018, Information Systems, UMBC.
- Salen Nhean, Research Assistant (NSF REU), Summer 2018 - Fall 2018, Business Technology Administration, UMBC.
- Nicholas Carter, Research Assistant, Fall 2015 - Spring 2018, Mechanical Engineering, UMBC.
- Heather Mortimer, Interdisciplinary Studies Capstone Project, Fall 2017 - Spring 2018, Interdisciplinary Studies, UMBC.
- Jessica Calle, Research Assistant (NSF REU), Summer 2017 - Fall 2017, Psychology and Social Work, UMBC.
- Mark Minnis, Research Assistant (NSF REU), Summer 2017 - Fall 2017, Business Technology Administration, UMBC.
- Andy Oneill, Research Assistant, Fall 2017, Business Technology Administration, UMBC.
- Erick Ronquillo, Research Assistant, Spring 2016 - Summer 2017, Information Systems, UMBC.

- Pavan Konanur, Research Assistant (NSF REU), Summer 2017, Biology, Minor: Statistics and Psychology, UMBC.
- Maria Francine Lapid, CRA-W Distributed Research Experience For Undergraduates (DREU) participant, Summer 2015, Computer Science, Texas A&M.
- Christian Ortega, CRA-W Distributed Research Experience For Undergraduates (DREU) participant, Summer 2015, Computer Science, Texas A&M.
- Denzel Ketter, Research Assistant, Fall 2016 - Spring 2017, Information Systems, UMBC.
- Gabrielle Salib, Interdisciplinary Studies Capstone Project, Fall 2015 - present, Interdisciplinary Studies, UMBC.
- Andrew Wolfe, Intern, Fall 2016 - Spring 2017, UMBC SUCCESS Program.
- Niara Comrie, Research Assistant, Fall 2014 - Fall 2016, Mechanical Engineering, UMBC.
- Samantha McDonald, Research Assistant, Fall 2013 - Summer 2016, Information Systems BS, Human-Centered Computing BS/MS, UMBC.
- Shaneice Young, Teaching Assistant, Spring 2016 - Summer 2016, UMBC SUCCESS Program, UMBC.
- Jane Lee, Research Assistant, Spring 2016, Visual Arts, UMBC.
- Elf Lorien Flo Curley, Intern, Fall 2015 - Spring 2016, UMBC SUCCESS Program.
- Braxton Dubin, Research Assistant, Summer 2015 - Spring 2016, Computer Science, UMBC.
- Chuk Amaefule, Research Assistant, Summer 2015, Information Systems, UMBC.
- Jeremey Chang, Research Assistant, Fall 2013 - Summer 2015, Mechanical Engineering, UMBC.
- Michael Hardesty, Independent Study, Spring 2014 - Summer 2015, Information Systems, UMBC.
- Casey Means,CRA-W Distributed Research Experience For Undergraduates (DREU) participant, Summer 2015, Computer Science, Rhodes College.
- Imani McLaurin, CRA-W Distributed Research Experience For Undergraduates (DREU) participant, Summer 2015, Computer Science, Bowie State University.
- Kevin Chang, Independent Study, Summer 2013-Spring 2015, Mechanical Engineering, UMBC.
- Catherine Hornback, Research Assistant, Spring 2014 - Spring 2015, Computer Science, UMBC.
- Corissa Anderson, Intern, Fall 2014 - Spring 2015, UMBC SUCCESS Program.
- Cedrick Lewis, Intern, Fall 2014, UMBC SUCCESS Program.
- Caroline Galbraith, Research Assistant, Spring 2013 - Summer 2014, Linguistics, UMBC.
- Abdullah Ali, Independent Study, Spring 2014 - Summer 2014, Information Systems, UMBC.
- Joshua Dutterer, Research Assistant, Fall 2012 - Fall 2014, Bio Engineering, UMBC.
- Joanna Finkelstein, CRA-W Distributed Research Experience For Undergraduates (DREU) participant, Summer 2014, Computer Science (Pamona College), UMBC.
- Megan Hofmann, CRA-W Distributed Research Experience For Undergraduates (DREU) participant, Summer 2014, Computer Science, Colorado State University.
- John Larson, Research Assistant, Spring 2014 - Summer 2014, Computer Science, UMBC.
- Sarah Pagan, Intern, Fall 2013 - Spring 2014, UMBC SUCCESS Program.
- Benjamin Gershowitz, Research Assistant, Summer 2013 - Spring 2014, Psychology, UMBC.
- Uvonne Andoh, Independent Study, URAS student, McNair Scholar, Fall 2012 - Fall 2013, Erickson School, UMBC.
- Farnaz Feizian, Independent Study, Fall 2012 - Summer 2013, Erickson School, UMBC.
- Skye Horbrook, CRA-W Distributed Research Experience For Undergraduates (DREU) participant, Summer 2011, Computer Science, Bowie State University, UMBC.
- Brian Leiter, Independent Study, Summer 2013, Mechanical Engineering, UMBC.
- Ryan Spann, Independent Study, Summer 2013, Information Systems, UMBC.
- Emily Schultheis, Independent Study, Summer 2013, Mechanical Engineering, UMBC.
- Clayonna Wheat, Research Assistant, Spring 2013, Information Systems, UMBC.
- Mona Rashidi, Independent Study, Spring 2013, Aging Management Services, UMBC.
- Quintanna Moody, Intern, Spring 2013, UMBC SUCCESS Program.
- Syed Rahman, Independent Study, Spring, Summer, Fall 2012, Mechanical Engineering, UMBC.
- Jeffrey Boyd, Research Assistant, Spring and Summer 2012, Information Systems, UMBC.
- David Brinkler, CRA-W Distributed Research Experience For Undergraduates (DREU) participant, Summer 2012, Computer Science, Morehouse College.
- Kate Ringland, CRA-W Distributed Research Experience For Undergraduates (DREU) participant, Summer

2012, Computer Science, Washington University Vancouver.
- Jasmine Jones, Capstone Project and CRA-W Collaborative Research Experience for Undergraduates, Fall and Spring 2012, Interdisciplinary Studies, UMBC.
- Chitra Gadwal, Independent Study, Spring 2012, Computer Science, UMBC.
- Steven Hall, Independent Study, Spring 2012, Visual Arts, UMBC.
- Sabeeh Hameed, Independent Study, Spring 2012, Information Systems, UMBC.
- Michael Roberts, Independent Study, Fall 2012, Mechanical Engineering, UMBC.
- Luke Roberts, Independent Study, Fall 2012, Mechanical Engineering, UMBC.
- Charles Bishop, Independent Study, Fall 2012, Information Systems, UMBC.
- Craig Brown, CRA-W Distributed Research Experience For Undergraduates (DREU) participant, Summer 2011, Computer Science, George Washington University.
- Jess Martens, CRA-W Distributed Research Experience For Undergraduates (DREU) participant, Summer 2011, Computer Science, Occidental College.

Teaching Experience at NYU

Interdisciplinary Accessibility Courses

- Spring 2020, DM 9103: Access and Assistive Technology in Historic Sites and Museums, enrolled 13.
- Spring 2020, OT-GE 2725: Research Interpretation in Occupational Therapy, enrolled 8.
- Fall 2019, DM 9103, Developing Assistive Technology, enrolled 21.
- Spring 2019, DM 9103, Looking Forward: Vision-related Access and Assistive Technology, enrolled 11.

Research Advisement

- Spring 2020, Graduate Independent Study, enrolled 2.
- Spring 2020, Undergraduate VIP, enrolled 3.
- Fall 2019, Graduate Independent Study, enrolled 2.
- Fall 2019, Undergraduate VIP, enrolled 4.

Teaching Experience at UMBC

Human-Centered Computing (HCC) Core Courses

Note: An asterisk(*) indicates classes that I significantly redesigned to meet the goals for our graduate program.

- Fall 2018, HCC 629: Fundamentals of Human-Centered Computing, enrolled: 26.
- Spring 2018, HCC 613: User Interface Prototyping and Development*, enrolled: 23.
- Fall 2017, HCC 710: Graphic Design for Interactive Systems*, enrolled: 24.
- Spring 2017, HCC 613: User Interface Prototyping and Development*, enrolled: 14.
- Spring 2017, HCC 729: Human-Centered Design, enrolled 15.
- Fall 2016, HCC 710: Graphic Design for Interactive Systems*, enrolled: 25.
- Spring 2016, HCC 613: User Interface Prototyping and Development*, enrolled: 21.
- Spring 2016, HCC 729: Human-Centered Design, enrolled: 15.
  Co-taught with Postdoctoral Scholar Aqueasha Martin-Hammond.
- Fall 2015, HCC 710: Graphic Design for Interactive Systems*, enrolled: 21.
- Spring 2015, HCC 710: Graphic Design for Interactive Systems*, enrolled: 25.
- Spring 2014, HCC 629: Fundamentals of Human-Computer Interaction, enrolled 19.
- Spring 2014, HCC 710: Graphic Design for Interactive Systems*, enrolled: 28.
- Fall 2013, IS 303: Fundamentals of Human-Computer Interaction, enrolled: 25.
- Spring 2013, HCC 729: Human-Centered Design, enrolled: 20.
- Spring 2013, HCC 710: Graphic Design for Interactive Systems*, enrolled: 20.
- Spring 2012, IS 403: User Interface Design, enrolled: 24.
- Fall 2011, HCC 629: Fundamentals of Human-Computer Interaction, enrolled: 24.
- Fall 2010, IS 403: User Interface Design, enrolled: 16.

Electives and Special Topic Courses

Note: I created and designed the following classes. An asterisk (*) indicates interdisciplinary collaborations outside my department.

- Fall 2015, IS 498/698: Prototyping and Design, enrolled: 7.
  In collaboration with the Intermedia and Digital Arts MFA Program
- Spring 2015, IS 298: 3D Printing and Entrepreneurship*, enrolled: 10.
  In collaboration with the Alex Brown Center for Entrepreneurship and the UMBC SUCCESS Program
- Fall 2014, HCC 741: Introduction to Assistive Technology and Accessibility Research, enrolled: 24.
- Spring 2013, 3D Printing and Older Adults
  In collaboration with the Erickson School of Aging and Management Services*
- Fall 2012, IS 698: Introduction to Assistive Technology and Accessibility Research, enrolled: 12
- Spring 2012, Project 2061: Human-Centered Design, Technology, and the Future of Aging*
  In collaboration with the Erickson School of Aging and Management Services, Mechanical Engineering, and Visual Arts
- Spring 2011, Project 2061: Human-Centered Design, Technology, and the Future of Aging*
  In collaboration with the Erickson School of Aging and Management Services, Mechanical Engineering, and Visual Arts
- Spring 2011, IS 698: Introduction to Assistive Technology and Accessibility Research, enrolled: 19.

NYU Service

Occupational Therapy Department, Steinhardt School of Culture, Education, and Human Development

- 2019 - present, Assistant Director, Online Post Professional Occupational Therapy Doctorate (OTD) Program
- 2019 - present, Member Occupational Therapy Grad Committee
- 2019 - present, Promotion and Tenure Committee
- 2020, Judge, Steinhardt Research Symposium.

Technology, Culture, and Society Department, Tandon School of Engineering

- 2020, Member, Faculty search Committee
- 2020, Reviewer, Tandon Global Leaders Program.
- 2020, mentor, Tandon Summer Undergraduate Research program.
- 2019 - present, faculty mentor, Everyday Assistive Technology VIP.
- 2019 - present, Member, IDM Graduate Committee
- 2019, Chair, Technology Culture and Society PhD Development Committee
- 2019, mentor, Tandon Summer Undergraduate Research program.

University Service

- 2020 - present, Member, Inclusion @ Tandon Committee.
- 2019 - present, Member, Disabilities, Inclusion and Accessibility Working Group (Provostial).
- 2019 - present, University Representative, Access Computing NYU University Partner,

UMBC Service

Information Systems Department

- 2017, Member, Business Services Specialist Search Committee.
- 2016 - present, **Graduate Program Director, Human-Centered Computing (MS and PhD programs).**
- 2016 - present, Chair, Human-Centered Computing Graduate Program Committee.
- 2015-2016, **Assistant Director, Interactive Systems Research Center.**
- 2016, Judge, Department Poster Session.
- 2015, Member, Information Systems Graduate Program Committee.
- 2015, Judge, Department Poster Session.
- 2015, Member, Business Services Specialist Search Committee.
- 2014, Member, Faculty Search Committee.
- 2014, Judge, Department Poster Session.
- 2013, Member, Faculty Search Committee.
- 2013, Member, Department Awards Committee.
- 2012, Member, Research Committee.
- 2012, Member, Department Merit Review.

- 2012, Host, HCC Seminar Series and MidAtlantic SIGACCESS Seminar Series, Dr. Juan Gilbert.
- 2012, Host, HCC Brown Bag, Dr. Beth Mynatt.
- 2012, Judge, Department Poster Session.
- 2012, Member, Research Committee.
- 2011, Speaker, Department Seminar Series.
- 2011, Member, Research Committee.
- 2011, Host, Department Seminar Series, Heather Markham.
- 2010 - present, Member, Human-Centered Computing and Information Systems Graduate Admissions Committee.

University Service

- 2018, Reviewer, CWIT Scholarships Reviewer.
- 2017, Member, **COEIT Dean Search Committee (Provost Invitation).**
- 2017, Member, **UMBC Advance Executive Committee (Provost Invitation).**
- 2017, Member, COEIT Teaching Circle.
- 2016, Reviewer, Undergraduate Research Awards.
- 2015 - present, Committee Member, NAE Grand Challenge Scholar's Program
- 2015 - present, Committee Member, Provost's Interdisciplinary Activities Task Force.
- 2014 - present, Committee Member, Shriver Center Faculty Advisory Board.
- 2014, Reviewer, CWIT Scholarships Reviewer.
- 2014 - 2016, Member, SUCCESS program Faculty Advisory Board.
- 2014 - 2016, Member, IRC Faculty Advisory Board.
- 2014, Participant, First Year Seminar for the SUCCESS program.
- 2013, Participant, First Year Seminar for the SUCCESS program.
- 2012, Participant, First Year Seminar for the SUCCESS program.
- 2012, Reviewer, CWIT Scholarships Reviewer.
- 2011 - 2017, Member, CCTF/CASC Transportation Work Group.
- 2011, Interviewer, CWIT Scholarships Interviews.
- 2011 - 2013, Mentor, CWIT Scholar, Tiffany Earnst, IS/CS Freshman.

External Professional Service

Teaching and Mentoring Activities

- 2016-2017, Member, Maryland Legislative Workgroup on Accessibility Concepts in Computer Science, Information Systems, and Information Technology Programs in Higher Education.
- 2016, Doctoral Consortium Reviewer and Panelist, ASSETS conference.
- 2015, Doctoral Consortium Reviewer and Panelist, ASSETS conference.
- 2013, Doctoral Consortium Reviewer and Panelist, ASSETS conference.
- 2012, Judge, W4A Google Student Awards.
- 2012, Reviewer and Judge, ASSETS Conference student Research Competitions.
- 2010, Reviewer and Judge, ASSETS Conference student Research Competitions.

Leadership and Offices Held

- 2017 - present, Member-at-Large, ACM Special Interest Group on Accessible Computing, SIGACCESS.
- 2019, **Web4All (W4A) 2019, Program Chair.**
- 2017, **General Chair, ASSETS 2017.**
- 2016, Doctoral Consortium Chair, ASSETS 2016.
- 2015, Student Research Competition Co-Chair, ASSETS 2015.
- 2013, Doctoral Consortium Co-Chair, ASSETS 2013.
- 2011-2013, Founder and Chair, Mid-Atlantic ACM SIGACCESS Chapter.
- 2011, Publicity Chair, ASSETS 2011.
- 2011, Organizer, CHI workshop on Dynamic Accessibility.

Reviewing

Program Committees

- 2020, PC Member, ACM Annual Conference on Human Factors in Computing Systems (CHI '21).

- 2020, PC Member, ACM SIGACCESS Conference on Computers and Accessibility (ASSETS).
- 2019, PC Member, ACM Annual Conference on Human Factors in Computing Systems (CHI '20).
- 2019, PC Member, ACM SIGACCESS Conference on Computers and Accessibility (ASSETS).
- 2019, PC Member, Web For All (W4a).
- 2018, PC Member, ACM SIGACCESS Conference on Computers and Accessibility (ASSETS).
- 2018, PC Member, Web For All (W4a).
- 2017, Posters PC Member, Richard Tapia Celebration of Diversity in Computing Conference (Tapia).
- 2016, PC Member, ACM SIGACCESS Conference on Computers and Accessibility (ASSETS).
- 2015, PC Member, ACM Annual Conference on Human Factors in Computing Systems (CHI '16).
- 2015, PC Member, ACM SIGACCESS Conference on Computers and Accessibility (ASSETS).
- 2015, PC Member, Grace Hopper Celebration of Women in Computing.
- 2015, PC Member, Web for All Conference (W4a).
- 2014, PC Member, ACM SIGACCESS Conference on Computers and Accessibility (ASSETS).
- 2014, PC Member, ACM Conference on Designing Interactive Systems (DIS).
- 2013, PC Member, ACM SIGACCESS Conference on Computers and Accessibility (ASSETS).
- 2012, PC Member, ACM Annual Conference on Human Factors in Computing Systems (CHI '13).
- 2012, PC Member, Grace Hopper Celebration of Women in Computing.
- 2012, PC Member, ACM SIGACCESS Conference on Computers and Accessibility (ASSETS).
- 2011, PC Member, ACM Annual Conference on Human Factors in Computing Systems (CHI '12) .
- 2011, PC Member, ACM SIGACCESS Conference on Computers and Accessibility (ASSETS).
- 2009, PC Member, ACM Annual Conference on Human Factors in Computing Systems (CHI '09), Works in Progress.

Grants

- 2020, Reviewer for 2020 CI Fellows program.
- 2019, Reviewer for Social Sciences and Humanities Research Council of Canada.
- 2017, Reviewer for an NSF Proposal Review Panel.
- 2016, Reviewer for Department of Education CTE Makerspace Makeover Challenge.
- 2016, Reviewer for an NSF Proposal Review Panel.
- 2013, Reviewer for an NSF Proposal Review Panel.
- 2011, Reviewer for an NSF Proposal Review Panel.

Editorial Boards

- 2017 - present, Editorial Board Member, Transactions on Accessible Computing.

Journals

- 2017, Reviewer, ToCHI.
- 2015, Reviewer, TACCESS.
- 2014, Reviewer, ToCHI.
- 2014, Reviewer, TACCESS.
- 2013, Reviewer, ToCHI.
- 2012, Reviewer, TACCESS.
- 2012, Reviewer, ASSISTIVE TECHNOLOGY.
- 2012, Reviewer, INTERACT.
- 2012, Reviewer IJHCS.
- 2011, Reviewer, ToCHI.
- 2009, Reviewer, Behavioral Research Methods.
- 2008, Reviewer, TACCESS.

Conferences (Not Program Committee)

- 2018, Reviewer, ACM Annual Conference on Human Factors in Computing Systems (CHI).
- 2018, Reviewer, ACM Symposium on User Interface Software and Technology (UIST).
- 2017, Reviewer, ACM Annual Conference on Human Factors in Computing Systems (CHI).
- 2016, Reviewer, ACM Conference on Designing Interactive Systems (DIS).
- 2016, Reviewer, ACM Symposium on User Interface Software and Technology (UIST).

- 2015, Reviewer, ACM Annual Conference on Human Factors in Computing Systems (CHI).
- 2015, Reviewer, ACM Conference on Tangible, Embedded, and Embodied Interaction (TEI).
- 2014, Reviewer, ACM Annual Conference on Human Factors in Computing Systems (CHI).
- 2014, Reviewer, ACM Symposium on User Interface Software and Technology (UIST).
- 2013, Reviewer, ACM Annual Conference on Human Factors in Computing Systems (CHI).
- 2012, Reviewer, ACM Conference on Computer Supported Cooperative Work (CSCW).
- 2012, Reviewer, iSchool's Conference (iConference).
- 2012, Reviewer, ACM International Symposium on Wearable Computers (ISWC).
- 2012, Reviewer, ACM International Conference on Intelligent User Interfaces (IUI).
- 2012, Reviewer, International Conference on Human Computer Interaction with Mobile Devices & Services (MobileHCI).
- 2012, Reviewer, International Conference on Pervasive Computing (Pervasive).
- 2012, Reviewer, International Conference on Pervasive Computing Technologies for Healthcare (Pervasive Health).
- 2012, Reviewer, ACM Conference on Tangible, Embedded, and Embodied Interaction (TEI).
- 2012, Reviewer, ACM Symposium on User Interface Software and Technology (UIST).
- 2011, Reviewer, ACM Annual Conference on Human Factors in Computing Systems (CHI).
- 2011, Reviewer, ACM Symposium on User Interface Software and Technology (UIST).
- 2010, Reviewer, ACM SIGACCESS Conference on Computers and Accessibility (ASSETS).
- 2010, Reviewer, ACM Annual Conference on Human Factors in Computing Systems (CHI).
- 2010, Reviewer, ACM International Conference on Intelligent User Interfaces (IUI).
- 2010, Reviewer, ACM Symposium on User Interface Software and Technology (UIST).
- 2009, Reviewer, ACM Annual Conference on Human Factors in Computing Systems (CHI).
- 2009, Reviewer, ACM Symposium on User Interface Software and Technology (UIST).
- 2008, Reviewer, ACM Annual Conference on Human Factors in Computing Systems (CHI).
- 2008, Reviewer, ACM Conference on Graphics Interfaces (GI).
- 2008, Reviewer, ACM Symposium on User Interface Software and Technology (UIST).
- 2008, Reviewer, ACM International Conference on Intelligent User Interfaces (IUI).
- 2007, Reviewer, ACM SIGACCESS Conference on Computers and Accessibility (ASSETS).
- 2007, Reviewer, ACM Symposium on User Interface Software and Technology (UIST).
- 2006, Reviewer, ACM Annual Conference on Human Factors in Computing Systems (CHI).
- 2005, Reviewer, ACM Annual Conference on Human Factors in Computing Systems (CHI).

Research Exhibits and Outreach

- April 2019, Organizer, NYU Dentistry Oral Health Center for People with Disabilities sensory room grand opening.
- 2018, Invited Exhibitor, Capitol Hill Maker Faire.
- 2017, Exhibitor, Gadgets and Gears Day at Maryland Science Museum (800 attendees).
- 2016, Invited Attendee, White House's Office of Science and Technology Policy Design for All Showcase
- 2016, Exhibitor, Maryland's Celebration of the 26th Anniversary of the ADA (300 attendees).
- 2015, Exhibitor, National Maker Faire
- 2015, Exhibitor, White House Accessibility Hackathon (100 attendees)
- 2015, Exhibitor, Gadgets and Gears Day at Maryland Science Museum.
- 2014, Exhibitor, US Science and Engineering Festival (200,000 attendees).
- 2014, Exhibitor, RobotFest (1,500 attendees).
- 2013, Exhibitor, Innovation Expo: DIY in Maryland at Enoch Pratt Free Library (200 attendees).
- 2013, Exhibitor, Americans with Disabilities Act Celebration at UMBC (200 attendees).
- 2012, Exhibitor, MakerFaire New York (25,000 attendees), Received Editor's Choice Award.
- 2012, Exhibitor, Americans with Disabilities Act Celebration at UMBC (200 attendees).
- 2012, Exhibitor, US Science and Engineering Festival (200,000 attendees).
- 2012, Exhibitor, RobotFest (2,000 attendees).

Consulting

- 2012, Workshop Organizer, End User Research Training at DAP, 2012.

Community Service and Non-Academic Affiliations

- 2016-2018, Volunteer, Baltimore Rock Opera Society (BROS).
- 2016, Judge, Baltimore Accessibility Hackathon.
- 2015, Judge, FabSlam at Digital Harbor Foundation.
- 2013, Panelist on Possible Career Paths: 3D Designers and Fabricators Panel by Digital Harbor Foundation.
- 2012, Judge, Baltimore Hackathon.
- 2011-2012, Chair, Association for Computing Machinery SIGACCESS Mid-Atlantic Chapter.
- 2010-present, Member, Baltimore Node (Hackerspace).
- 2008-2010, Member, Hack Pittsburgh (Hackerspace).
- 2007-2010, Volunteer, United Cerebral Palsy, Pittsburgh.