AMY HURST

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Education

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

Honors Received

2016	NCWIT Undergraduate Mentoring Award
2009	Richard King Mellon Presidential Fellowship in the Life Sciences
2008	ACM Symposium on User Interface Software and Technology (UIST), Doctoral Consortium.
2008	ACM SIGACCESS Conference on Computers and Accessibility (ASSETS), Doctoral Consortium.
2008	International Symposium on Wearable Computers (ISWC), Doctoral Consortium.
2008	Google Anita Borg Scholarship
2005	National Science Foundation Graduate Research Fellowship

Professional Leadership Experience and Training

2017	HERS Summer Institute, Bryn Mawr
2017	ASSETS 2017, General Chair
2016 - present	HCC Graduate Program Director

Employment

University of Maryland, Baltimore County (UMBC)

2016 - present	Graduate Program Director	Human-Centered Computing
2016 - present	Associate Professor	Information Systems Department
2016 - present	Associate Director	Interactive Systems Research Center
2010 - 2016	Assistant Professor	Information Systems Department
2010 - present	Founder	Prototyping and Design Lab

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

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 currently an undergraduate at the time the research was performed.

Peer-Reviewed Journal Articles

[1] 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.

[2] 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.

[3] 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.

[4] 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.

[5] 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.

[6] 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.

[7] 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.

[8] 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.

Peer-Reviewed Conference Proceedings

[1] 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%.

[2] 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%.

[3] *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)**.

[4] 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).

[5] 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).

[6] 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

[7] 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.

[8] 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**).

[9] 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.

[10] 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%.

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

[12] 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**).

[13] 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%.

[14] 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%.

[15] 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%.

[16] 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%.

[17] 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%.

[18] 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.

[19] 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.

[20] *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.

[21] 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.

[22] 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%.

[23] 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%.

[24] 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**).

[25] 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.

[26] 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%.

[27] 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.

[28] 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.

[29] 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%.

[30] *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.

[31] 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.

[32] *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%.

[33] 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%.

[34] 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%.

[35] 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%.

[36] 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%.

[37] 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%.

[38] 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%.

[39] 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%.

[40] 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.

[41] 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.

[42] 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.

[43] 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%.

[44] 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%.

[45] 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.

[46] 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%.

[47] 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%.

[48] 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.

[49] 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%.

[50] 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%.

[51] 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] 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.

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

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

Press and Blog Mentions

[1] MILES O'BRIAN, K. T. 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.

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

[3] 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/.

[4] 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/.

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

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

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

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

[9] 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.

[10] 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/.

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

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

[13] 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/`.

[14] 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/`.

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

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

[17] 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`.

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

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

Presentations

Note: All of the papers listed above as conference or workshop papers were presented at the event, either by myself or by a co-author. This list includes additional invited presentations.

- 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.
- Speaker, Computer Science Seminar, University of Florida, March 2015.
- Speaker, GVU Brown Bag, Georgia Institute of Technology, March 2015.
- Speaker, iSchool Seminar, University of California Irvine, February 2015.

- Speaker, Human-Computer Interaction Institute 20th Anniversary Celebration, November 2014.
- Speaker, Computer Science Colloquium Talk, Carleton College, 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.
- 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.
- 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.

STUDENT and RESEARCHER MENTORING
Postdoctoral Scholars

- Foad Hamidi, Spring 2016 - present. received PhD at York University in 2016.
- Aqueasha Martin Hammond, Fall 2014 - Summer 2016, received PhD at Clemson University in 2014, Assistant Professor at IUPUI starting Fall 2016.

Ph.D. Students

Ph.D. Research in Progress
Primary Advisor:

- Patrick Carrington, Expected graduation: August 2017, HCC Ph.D.
- Erin Buehler, Expected graduation: October 2017, HCC Ph.D.
- William Easley, Expected graduation: May 2019, HCC Ph.D.

Committee Member:

- Galina Madjaroff, Advanced to candidacy: May 2017, Expected graduation: May 2018, HCC Ph.D.

Ph.D. Research Completed
Primary Advisor:

- Michele Williams, Graduate date: December 2015, HCC Ph.D.

Committee Member:

- Huimin Quian, Graduation date: May 2014, HCC Ph.D.

Master's Research in Progress
Committee Member:

- Ted O'Meara, Expected graduation date: May 2016, HCC M.S. none

Master's Research Completed
Committee Member:

- Jasmine Tobias, May 2014, HCC M.S.
- Nitin Taksande, December 2011, IS M.S.

Undergraduate Students

Undergraduate Research in Progress

- Nicholas Carter, Research Assistant, Fall 2015 - present, Mechanical Engineering.
- Erick Ronquillo, Spring 2016 - present, Information Systems.
- Jessica Calle, Research Assistant (NSF REU), Summer 2017 - present, Psychology and Social Work.
- Pavan Konanur, Research Assistant (NSF REU), Summer 2017 - present, Biology, Minor: Statistics and Psychology.
- Mark Minnis, Research Assistant (NSF REU), Summer 2017 - present, Business Technology Administration.
- 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).

Undergraduate Research Completed

- Denzel Ketter, Research Assistant, Fall 2016 - Spring 2017, Information Systems.
- Gabrielle Salib, Interdisciplinary Studies Capstone Project, Fall 2015 - present, Interdisciplinary Studies.
- Niara Comrie, Research Assistant, Fall 2014 - Fall 2016, Mechanical Engineering.
- Samantha McDonald, Research Assistant, Fall 2013- Summer 2016, Information Systems BS and Human-Centered Computing MS.
- Shaneice Young, Teaching Assistant, Spring 2016 - Summer 2016, UMBC SUCCESS Program.
- Jane Lee, Research Assistant, Spring 2016, Visual Arts.
- Elf Lorien Flo Curley, Intern, Fall 2015 - Spring 2016, UMBC SUCCESS Program.
- Braxton Dubin, Research Assistant, Summer 2015 - Spring 2016, Computer Science.

- Chuk Amaefule, Research Assistant, Summer 2015, Information Systems.
- Jeremey Chang, Research Assistant, Fall 2013 - Summer 2015, Mechanical Engineering.
- Michael Hardesty, Independent Study, Spring 2014 - Summer 2015, Information Systems.
- 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.
- Catherine Hornback, Research Assistant, Spring 2014 - Spring 2015, Computer Science.
- 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,
- Abdullah Ali, Independent Study, Spring 2014 - Summer 2014, Information Systems.
- Joshua Dutterer, Research Assistant, Fall 2012 - Fall 2014, Bio Engineering.
- Joanna Finkelstein, CRA-W Distributed Research Experience For Undergraduates (DREU) participant, Summer 2014, Computer Science (Pamona College).
- 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.
- Sarah Pagan, Intern, Fall 2013 - Spring 2014, UMBC SUCCESS Program.
- Benjamin Gershowitz, Research Assistant, Summer 2013 - Spring 2014, Psychology.

- Uvonne Andoh, Independent Study, URAS student, McNair Scholar, Fall 2012 - Fall 2013, Erickson School.
- Farnaz Feizian, Independent Study, Fall 2012 - Summer 2013, Erickson School.
- Skye Horbrook, CRA-W Distributed Research Experience For Undergraduates (DREU) participant, Summer 2011, Computer Science (Bowie State University).
- Brian Leiter, Independent Study, Summer 2013, Mechanical Engineering.
- Ryan Spann, Independent Study, Summer 2013, Information Systems.
- Emily Schultheis, Independent Study, Summer 2013, Mechanical Engineering.
- Clayonna Wheat, Research Assistant, Spring 2013, Information Systems.
- Mona Rashidi, Independent Study, Spring 2013, Aging Management Services.
- Quintanna Moody, Intern, Spring 2013, UMBC SUCCESS Program.

- Syed Rahman, Independent Study, Spring, Summer, Fall 2012, Mechanical Engineering.
- Jeffrey Boyd, Research Assistant, Spring and Summer 2012, Information Systems.
- 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.
- Chitra Gadwal, Independent Study, Spring 2012, Computer Science.
- Steven Hall, Independent Study, Spring 2012, Visual Arts.

- Sabeeh Hameed, Independent Study, Spring 2012, Information Systems.

- Michael Roberts, Independent Study, Fall 2012, Mechanical Engineering.
- Luke Roberts, Independent Study, Fall 2012, Mechanical Engineering.
- Charles Bishop, Independent Study, Fall 2012, Information Systems.
- 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).

Graduate Independent Studies

PhD Students

- Fall 2015 - present, William Easley, UMBC Human-Centered Computing.
- Summer 2013 - present, Erin Buehler, UMBC Human-Centered Computing.
- Fall 2013 - present, Germaine Irwin, UMBC Human-Centered Computing.
- Summer 2013 - Fall 2013, Iftekhar Tanveer, UMBC Human-Centered Computing.
- Spring 2012 - Fall 2013, Rita Shewbridge, UMBC Human-Centered Computing.
- Spring 2012 - Fall 2013, Galina Madjaroff, UMBC Human-Centered Computing.
- Spring 2012 - present, Patrick Carrington, UMBC Human-Centered Computing.
- Spring 2012, Lula Albar, UMBC Human-Centered Computing.
- Spring 2012, Robin Brewer, UMBC Human-Centered Computing.
- Spring 2012, Lola Stefanelli, UMBC Human-Centered Computing.
- Spring 2011, Rui Zhu, UMBC Human-Centered Computing, Spring 2011.

Masters Students

- Spring 2017, Tejas Bhalerao, UMBC, Human-Centered Computing
- Spring 2016, Morgan Scheuerman, UMBC, Human-Centered Computing
- Spring 2015, Dhuel Fischer, UMBC Human-Centered Computing.
- Spring 2015, William Easley, UMBC Human-Centered Computing.
- Spring 2015, Hee-Ra Lee, UMBC Human-Centered Computing.
- Fall 2015 - Summer 2016, Abdullah Ali, UMBC Human-Centered Computing.
- Fall 2014, Keith Bryant, UMBC Human-Centered Computing.
- Fall 2014, Caroline Galbraith, UMBC Human-Centered Computing.
- Fall 2013, Jefreena Packlanathan, UMBC Human-Centered Computing.
- Summer 2013, Rocio Calvo, Universidad Carlos III, Computer Science.
- Spring 2012, Jennifer Beser, UMBC Human-Centered Computing.
- Spring 2012, Shannon Hosmer, UMBC Human-Centered Computing.
- Spring 2012, Darya Slobodyanik, UMBC Human-Centered Computing.
- Fall 2012, Russ Jarowski, UMBC Human-Centered Computing.
- Fall 2012, Jasmine Tobias, UMBC Human-Centered Computing.
- Fall 2012, Chris Kidd, UMBC Human-Centered Computing.

Teaching Innovations

Spring 2016	HCC 613: User Interface Prototyping and Development
Fall 2016	HCC 698: 3D Printing for Entrepreneurship
Fall 2014	HCC 741: Accessibility and Assistive Technology
Fall 2013	IS 698 / 800: Special Topics on Assistive Technology.
Fall 2012	AGN 400 / IS 400: Undergraduate Special Topics on 3D printing for Older Adults. Co-taught with Erickson School, Visual Arts and Mechanical Engineering.
Fall 2011	AGN 400 / IS 400: Undergraduate Special Topics on the Future of Aging. Co-taught with Erickson School, Visual Arts and Mechanical Engineering.
Spring 2011	AGN 400 / IS 400: Undergraduate Special Topics on the Future of Aging. Co-taught with Erickson School, Visual Arts and Mechanical Engineering.
Spring 2011	IS 698 / 800: Special Topics on Assistive Technology.

SERVICE

Departmental Service

- 2016, Graduate Program Director, Human-Centered Computing (MS and PhD programs).
- 2016, Chair, Human-Centered Computing Graduate Program Committee.
- 2015, Assistant Director, Interactive Systems Research Center.
- 2016, Judge, Information Systems Department Poster Session.
- 2015, Member, IS Graduate Program Committee.
- 2015, Assistant Director, Interactive Systems Research Center.
- 2015, Judge, Information Systems Department Poster Session.
- 2014, Member, Hiring Committee.
- 2014, Judge, Information Systems Department Poster Session.
- 2013, Member, Hiring Committee.
- 2013, Member, IS Department Awards Committee.
- 2012, Member, Research Committee.
- 2012, Member, Information Systems 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, Information Systems Department Poster Session.
- 2012, Member, Research Committee.
- 2011, Speaker, IS Seminar Series (Do It Yourself, Assistive Technology).
- 2011, Member, Research Committee.
- 2011, Host, IS Seminar Series, Heather Markham (Service Dogs: What, Who, and Why They Matter).
- 2010 - present, Member, HCC and IS Graduate Admissions Committee.

University Service

- 2017. Committee 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 - 2016. Member, SUCCESS program Faculty Advisory Board.
- 2014 - 2016. Member, IRC Faculty Advisory Board.
- 2014, 2013, 2012, Participant, First Year Seminar for the SUCCESS program.
- 2014, 2012, Reviewer, CWIT Scholarships Reviewer.
- 2012 - 2016, Mentor, CWIT Scholar, Samantha McDonald, IS Freshman.
- 2011 - present, Member, CCTF/CASC Transportation Work Group.
- 2011, Interviewer, CWIT Scholarships Interviews.
- 2011 - 2013, Mentor, CWIT Scholar, Tiffany Earnst, IS/CS Freshman.

Professional Service

Teaching and Mentoring Activities

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

Leadership and Offices Held

- 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 - 2011-2013, Founder and Chair, Mid-Atlantic ACM SIGACCESS Chapter.
- 2011, Publicity Chair, ASSETS 2011.
- 2011, Organizer, CHI workshop on Dynamic Accessibility.

Research Exhibits

- 2015, Exhibitor, National Maker Faire
- 2015, Exhibitor, White House Accessibility Hackathon (100 attendees)
- 2015, Exhibitor, Gadgets and Gears Day at Maryland Science Musem.
- 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).

Community Service and Affiliations

- 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.
- 2010-2012, Member, Baltimore Node (Hackerspace).
- 2008-2010, Member, Hack Pittsburgh (Hackerspace).
- 2007-2010, Volunteer, United Cerebral Palsy, Pittsburgh.