

INDUSTRY EXPERIENCE

Senior User Experience Researcher & Manager, 2020 to Present

Google, Mountain View, California

Central Accessibility, July 2020 to Present

- ⇒ Lead foundational research to inform novel and inclusive product experiences for people with cognitive disabilities.
- ⇒ Create user research standards and educational materials on cognitive accessibility for distribution across Google.
- ⇒ Manage project execution and career growth for UX researchers working on product accessibility.
- ⇒ Collaborate and consult on accessible research and design best practices for a range of Google products.

User Experience Researcher & Manager, 2017 to 2020

Facebook, Menlo Park, California

People Analytics, September 2019 to June 2020

- ⇒ Applied qualitative research methods to contextualize trends in data analytics related to employee recruiting, engagement, and growth.
- ⇒ Partnered with interdisciplinary teams to design, pilot, and implement improvements to the experiences of Facebook's technical workforce.
- ⇒ Led a team of mixed methods researcher in data-driven impacts on business-critical people issues and organizational challenges.

Facebook App Product Foundation, August 2017 to August 2019

- ⇒ Scoped and executed research to explore design foundation topics, identified interface pain points, and uncovered accessibility barriers.
- ⇒ Impacted product decisions with data-driven recommendations and strong proposals based on research synthesis.

EDUCATION

Ph.D. in Human-Centered Computing, 2018

University of Maryland, Baltimore County
Advisor: Dr. Amy Hurst

M.S. in Human-Centered Computing, 2014

University of Maryland, Baltimore County

B.S. in Computer Science, 2011
Eastern Washington University

PUBLICATIONS

Note: Within my discipline, conference proceedings are perceived as having equal or higher impact than journal publications. Conference proceedings are highly selective, peer-reviewed, and archival publications. Paper acceptance rates are indicated in brackets [%] wherever they are publicly available.

Peer-Reviewed Journal Articles

- [J1] Buehler, E., Comrie, N., Hofmann, M., McDonald, S., and Hurst, A. (2016). "Investigating the Implications of 3D Printing in Special Education." *ACM Transactions on Accessible Computing (TACCESS)*, 8, 3, Article 11 (March 2016).

Peer-Reviewed Conference Papers

- [C7] Easley, W., Buehler, E., Salib, G., and Hurst, A. (2017). "Fabricating Engagement: Benefits and Challenges of Using 3D Printing to Engage Underrepresented Students in STEM Learning." *Proceedings of the American Society of Engineering Education, Minorities in Engineering Division*. Columbus, OH, USA, (to appear).
- [C6] McDonald, S., Comrie, N., Buehler, E., Carter, C., Dubin, B., Gordes, K., McCombe-Waller, S., and Hurst, A. (2016). "Uncovering Challenges and Opportunities for 3D Printing Assistive Technology with Physical Therapists." *Proceedings of the 2016 ACM Conference on Computers and Accessibility (ASSETS)*. ACM, New York, NY, USA, 131-139. [25%] 🏆 **Best student paper award** [1%]. 🏆
- [C5] Buehler, E., Easley, W., Poole, A., and Hurst, A. (2016). "Accessibility Barriers to Online Education for Young Adults with Intellectual Disabilities." *Proceedings of the Web for All Conference, (W4A)*. ACM, New York, NY, USA, Article 27.
- [C4] Buehler, E., Easley, W., McDonald, S., Comrie, N., and Hurst, A. (2015). "Inclusion and Education: 3D Printing for Integrated Classrooms." *Proceedings of the 2015 ACM Conference on Computers and Accessibility (ASSETS)*. ACM, New York, NY, USA, 281-290. [23%]
- [C3] Buehler, E., Branham, S., Ali, A., Chang, J., Hofmann, M., Hurst, A., and Kane, S.K. (2015). "Sharing is Caring: Assistive Technology Designs on Thingiverse." *Proceedings of the 2015 ACM SIGCHI Conference on Human Factors in Computing Systems (CHI)*. ACM, New York, NY, USA, 525-534. [25%] 🏆 **Best paper award** [1%]. 🏆
- [C2] Buehler, E., Kane, S. K., and Hurst, A. (2014). "ABC and 3D: Opportunities and Obstacles to 3D Printing in Special Education Environments." *Proceedings of the 2014 ACM Conference on Computers and Accessibility (ASSETS)*. ACM, New York, NY, USA, 107-114. [26%]

- [C1] Buehler, E., Alayed, F., Epstein, S., and Komlodi, A. (2012). "It is magic!": A Global Perspective on What Technology Means to Youth." *Proceedings of the 2012 International Conference on Cultural Attitudes Towards Technology and Communication (CaTaC)*. Murdoch University, Australia, 100-104.

Peer-Reviewed Posters, Notes, and Demos

- [P5] Comrie, N., McDonald, S., Hurst, A., and Buehler, E. (2016). "Empowering Physical Therapists to Create 3D Printed Assistive Technology." *ACM Richard Tapia Celebration of Diversity in Computing*. Poster.
- [P4] Buehler, E., Grimes, S., Grimes, S., and Hurst, A. (2015). "Investigating 3D Printing Education with Youth Designers and Adult Educators." *Conference on Creativity and Fabrication in Education (FabLearn)*. Poster.
- [P3] Williams, M., Buehler, E., Hurst, A., and Kane, S.K. (2015). "What Not to Wearable: Using Participatory Workshops to Explore Wearable Device Form Factors for Blind Users." *Proceedings of the 2015 Web for All Conference (W4A)*. ACM, New York, NY, USA, Article 31. Communication. [35%]
- [P2] Buehler, E., Hofmann, M., and Hurst, A. (2014). "Coming to Grips: 3D Printing for Accessibility." *Proceedings of the 2014 ACM Conference on Computers and Accessibility (ASSETS)*. ACM, New York, NY, USA, 291-292. Demo. [26%]
- [P1] Buehler, E., Johnson, J., Price, K., Hopkins, T., and Taylor, C. (2010). "LEGO Robots can Stimulate Interest in Computer Science." *The 2010 Grace Hopper Celebration of Women in Computing (GHC)*. Poster.

Invited Editorials

- [E2] Buehler, E. (2016). "Fabrication Lends a Hand: Creating Custom Assistive Technology." *ACM XRDS*, 22, 3 (April 2016), 70-75.
- [E1] Kane, S., Hurst, A., Buehler, E., Carrington, P., and Williams, M. (2014). "Collaboratively Designing Assistive Technology." *ACM Interactions* 21, 2 (March 2014), 78-81.

Doctoral Consortium

- [D1] Buehler, E. (2015). "Supporting Inclusive and Collaborative Postsecondary Education For Adults With Intellectual Disabilities." Presented at the *ACM SIGACCESS Conference on Computers and Accessibility (ASSETS)*, printed in *SIGACCESS Accessible Computing*, Issue 114 (March 2016), 16-19.

Peer-Reviewed Workshops

- [W4] Ducharme, K., Buehler, E., and Blackorby, J. (2017). "Makerspaces: Moving Beyond Accessibility with UDL." *SXSWedu Conference and Festival*. Organizer.

- [W3] Buehler, E. (2016). "Leveraging 3D Printing to Support Education and Accessibility." *Coleman Institute Conference on Cognitive Disability and Technology*. Organizer.
- [W2] Buehler, E. (2016). "Emergent Technology Literacy and Access to Postsecondary Education." In *Exploring Social Justice, Design, and HCI at ACM SIGCHI Conference on Human Factors in Computing Systems (CHI)*. Participant.
- [W1] Rode, J., Brady, E., Buehler, E., Kane, S., Ladner, R., Ringland, K., and Mankoff, J. (2016). "SIG on the State of Accessibility at CHI." *Proceedings of the 2016 CHI Conference Extended Abstracts on Human Factors in Computing (CHI EA)*. ACM, New York, NY, USA, 1100-1103. Organizer.

Invited Talks

- [I6] "AMA: Understanding COGA, W3C's Cognitive Accessibility Guidelines", Google I/O, May 2021.
- [I5] "Cognitive Accessibility at Google", ACM Conference on Human Factors in Computing Systems (CHI), May 2021.
- [I4] "Computing for Good: Accessibility Research", exploreCSR Solar SPELL- Arizona State University, March 2021.
- [I3] "Making and Learning: 3D Printing and Education", NSF Day: PAEMST Professional Development Session – NSF, July 2015.
- [I2] "3D Printing for Education and Accessibility", Maker Educators: 3D Night – Digital Harbor Foundation, March 2015.
- [I1] "Assistive Technology", Meet the Innovators – KID Museum, March, 2015.

FUNDING

2016	Google Anita Borg Memorial Scholarship: \$10,000
2016	Web for All Conference Addressing Information Barriers (W4A) <i>Student travel grant: \$500</i>
2015	Conference on Creativity and Fabrication in Education (FabLearn) <i>Student scholarship: \$250</i>
2014 – 2015	UMBC Graduate Student Association <i>Student travel grant: \$750</i>
2014	N.S.F. Grant, "EAGER: Exploring Appropriate 3D Printing Paradigms in Special Education" (Award #1451661) <i>PI: Dr. Amy Hurst (I provided a significant writing contribution): \$149,884</i>
2014	Alex. Brown Center for Entrepreneurship, UMBC, Entrepreneurship and Innovation Curriculum Grant <i>PI: Dr. Amy Hurst (I provided a significant writing contribution): \$5,000</i>
2013 - 2015	U.S. Department of Education, GAANN Fellowship

	<i>Annual stipend: \$30,000</i>
2009	The Computing Research Association's Committee on the Status of Women in Computing Research (CRA-W) Collaborative Research Experience for Undergraduates (CREU) at Eastern Washington University <i>PI: Dr. Carol Taylor (I provided a significant writing contribution); team stipend and travel award: \$14,600</i>
2009	Washington State University's Research Experience for Undergraduates (REU) <i>Student researcher to Dr. Diane Cook; summer research stipend: \$4,000</i>

HONORS & AWARDS

2016	ACM Conference on Computers and Accessibility; <i>Best Student Paper</i>
2016	ACM Conference on Human Factors in Computing Systems; <i>Excellent Reviewer</i>
2015	ACM Conference on Human Factors in Computing Systems; <i>Best Paper Award</i>
2011	Eastern Washington University; <i>Outstanding Student in Computer Science</i>

TEACHING EXPERIENCE

Lecturer

2015 - 2017	Special Topic: 3D Printing and Entrepreneurship, IS 298/498
2014	Introduction to Computer Programming, IS 147
2013	Fundamentals of Human-Computer Interaction, IS 303
2012	Computer Programming II, IS 247

Assistant

2013	Structured Systems Analysis and Design, IS 634
2012 - 2013	Learning About, with, and from Students with Intellectual Disabilities, FYS 102R
2011	Electronic Commerce, IS 667

MENTORING

Graduate Students

Abdullah Ali

M.S. in Human-Centered Computing, graduated 2016. Completed a Ph.D. in Information Science at the University of Washington, graduated 2020. Accepted an offer with Amazon AWS.

William Easley

Ph.D. in Human-Centered Computing, graduated 2020. Accepted an offer with Apple.

Amy Poole

M.S. in Human-Centered Computing, graduated 2018.

Morgan Klaus Scheuerman

M.S. in Human-Centered Computing, graduated 2018. Currently pursuing a Ph.D. in Information Science at the University of Colorado, Boulder, expected graduation 2023.

Undergraduate Students

Nicholas Carter

B.S. in Mechanical Engineering, graduated 2017.

Jian-ming (Jeremy) Chang

B.S. in Mechanical Engineering, graduated 2016. Currently pursuing a Ph.D. in Aerospace Engineering at the University of Maryland, College Park.

Niara Comrie

B.S. in Mathematics, graduated 2017. Completed an M.S. in Management Information Systems at Ashford University.

Braxton Dubin

B.S. in Computer Science, graduated 2017. Accepted an offer at SONA Networks.

Caroline Galbraith

B.A. in Linguistics, graduated 2013. Completed an M.S. in Human-Centered Computing at the University of Maryland, Baltimore County. Accepted an offer at Northrop Grumman.

Michael Hardesty

B.S. in Information Systems, graduated in 2015. Completed an M.S. in Cybersecurity Technologies at University of Maryland, University College.

Megan Hofmann

B.E. in Computer Engineering & Science at Colorado State University, graduated 2016. Currently pursuing a Ph.D. in Human-Computer Interaction at Carnegie Mellon University, expected graduation 2022.

Samantha McDonald

B.S. in Information Systems, graduated 2016. Completed a Ph.D. in Informatics at the University of California, Irvine in 2021. Accepted an offer at Meta.

Gabrielle Salib

B.S. in Interdisciplinary Studies with a focus on Human-Centered Computing, graduated 2017. Currently pursuing a Ph.D. in Information Science at Drexel University.

Shaniece Young

UMBC SUCCESS Certificate Program, graduated 2016.

ACADEMIC SERVICE

Committees

2022	<i>SIGCHI Accessibility Committee</i>
2021	<i>Coleman Institute for Cognitive Disabilities' Technical Advisory Board</i>
<i>ACM SIGACCESS Conference on Computers and Accessibility (ASSETS)</i>	
2020	Program Committee
2018	Program Committee
2017	Accessibility Chair
<i>ACM Conference on Human Factors in Computing Systems (CHI)</i>	
2018	Accessibility Co-Chair
2016	DIY Healthcare Workshop Committee

Conference Reviewing

2021	International Web for All Conference (W4A)
2017	International Conference on Computer Supported Collaborative Learning
2016	ACM Symposium on Computer-Human Interaction in Play (CHI PLAY)
2016 - 2020	ACM Conference on Computers and Accessibility (ASSETS)
2016	ACM International Conference on Intelligent User Interfaces (IUI)
2015 – 2021	ACM Conference on Human Factors in Computing Systems (CHI)
2015	ACM Conference on Tangible, Embedded, and Embodied Interaction (TEI)
2015	ACM Symposium on User Interface Software and Technology (UIST)
2012	International Conference on Cultural Attitudes Towards Technology and Communication (CaTaC)

Journal Reviewing

2020	Assistive Technology
2019	International Journal of Child-Computer Interaction
2019	Journal of Enabling Technologies
2017	Journal of Geoscience Education
2016, 2020	ACM Transactions on Accessible Computing (TACCESS)
2016 – 2017	Interacting with Computers (IWC)

Paper Stewardship & Mentoring

2020	ACM Conference on Computers and Accessibility (ASSETS)
------	--

Student Volunteering

2017	ACM Conference on Human Factors in Computing Systems (CHI)
------	--

DEPARTMENTAL & UNIVERSITY VOLUNTEERING

Research Exhibits

2016	Americans with Disabilities Act Celebration at the National Federation of the Blind
2015	White House Accessibility Hackathon
2014	U.S. Science and Engineering Festival
2013	Innovation Expo: DIY in Maryland at Enoch Pratt Free Library

Internal Presentations

2016	"Positive Day: Designing a Positive Lab Environment". <i>Interactive Systems Research Center; Fika Lecture Series, UMBC</i>
2015	"Publication Writing: CHI Conference". <i>GOIS Graduate Writing Improvement Program, UMBC</i>
2013	"Designing for the Scariest Users: Kids". <i>Guest Lecture, IS403, UMBC</i>

MEDIA MENTIONS

- [M6] Markland, L. "3D Printing AT, for Entrepreneurs and Students Alike", *Where It's AT – Maryland Department of Disabilities AT Blog*, 2016. <http://www.equipmentlink.org/blog/?p=3334>.
- [M5] Dubrow, A. "Making the Maker Movement Accessible." NSF.gov, 2015. https://www.nsf.gov/discoveries/disc_summ.jsp?cntn_id=135608.
- [M4] Nourbakhsh, I. "Make for Humanity." *Huffington Post*, 2015. http://www.huffingtonpost.com/illah-Nourbakhsh/make-for-humanity_b_7681562.html.
- [M3] NSF. "New Paths to Innovation and Learning Through DIY Technologies." NSF.gov, 2015. https://www.nsf.gov/news/news_summ.jsp?cntn_id=135397.
- [M2] Masterson, K. "Launch PAD." *UMBC Magazine*, Winter 2014. <http://umbcmagazine.wordpress.com/umbc-magazine-winter-2014/launch-pad/>.
- [M1] 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/>.