

## OBJECTIVE

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I leverage user-centered design, qualitative research, and iterative prototyping to identify and resolve issues of technology usability and accessibility. By my reckoning, anything can be accomplished with communication, collaboration, creativity, and critical thinking.

## EDUCATION

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### **Ph.D. in Human-Centered Computing, 2017 (Expected)**

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

## SKILLS & TOOLS

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### **Qualitative Research**

Contextual Inquiry, Ethnography and Field Observation, Focus Groups and Interviewing, Heuristic and Usability Evaluation, Low-to-Medium Fidelity Prototypes, Participatory and Co-Design, Personas and Scenarios, Surveys, Wireframes

### **Programming and Web**

Java, C#, C++, C, Python; HTML, CSS, JavaScript

### **Design and Prototyping**

Adobe Photoshop and Illustrator, GIMP, Inkscape; Adobe InDesign, Balsamiq, UXPin; Autodesk 123D Design, MeshMixer, and Tinkercad, OpenSCAD

### **Fabrication**

3D Printing: MakerBot, LulzBot, Printrbot, Ultimaker; Boards/Controllers: Arduino, Raspberry Pi; Laser and Vinyl Cutting

## ABOUT ME

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I love the terrors of space, dinosaurs with and without feathers, and getting irrationally angry about bad interface design in sci-fi movies. My wife and I are avid travelers (five continents and at least a dozen countries between us), and we have a tuxedo cat named "Loki" whom we stole from Morocco.

## SELECTED PUBLICATIONS

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*Note: Paper acceptance rates are indicated in brackets [%] wherever they are publically available.*

### Peer-Reviewed Journal Articles

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

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%] 🏆

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.

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%]

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%]. 🏆

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%]

### Peer-Reviewed Posters, Notes, and Demos

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.

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%]