# Sharon Heung

ssh247@cornell.edu
www. sharonheung.com

## Research Statement

My work is at the intersection of accessibility, human-computer interactions, and digital safety. I am motivated in understanding ableism on social media to better support disabled people's self-expression and safety online. This includes examining disability-related discrimination by other users and how platforms facilitate and exacerbate such harmful experiences. I hope to reimagine a more inclusive digital space for the disability community.

## Education

**Information Science, PhD**                                                September 2020 – Present
Cornell University, Cornell Tech NYC Campus
Co-advised by Shiri Azenkot & Aditya Vashistha
Committee Minor Member: Karen Levy

**Human Centered Design & Engineering, B.S.**                              September 2015 - June 2019
University of Washington, Seattle
HCI emphasis; Global Health Minor

## Publications

[1] **Sharon Heung**, Lucy Jiang, Shiri Azenkot, and Aditya Vashistha. 2024. "Vulnerable, Victimized, and Objectified": Understanding Ableist Hate and Harassment Experienced by Disabled Content Creators. *Accepted to 2024 CHI Conference on Human Factors in Computing Systems (CHI '24).*

[2] **Sharon Heung\***, Pooja Upadhyay\*, Shiri Azenkot, and Robin N. Brewer. 2023. Studying Exploration & Long-Term Use of Voice Assistants by Older Adults. In Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (CHI '23).
\* co-authors

[3] **Sharon Heung**, Mahika Phutane, Shiri Azenkot, Megh Marathe, and Aditya Vashistha. 2022. Nothing Micro About It: Examining Ableist Microaggressions on Social Media. In the 24th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '22).

[4] Joy Ming, **Sharon Heung**, Shiri Azenkot, and Aditya Vashistha. 2021. Accept or Address? Researchers' Perspectives on Response Bias in Accessibility Research. In The 23rd International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '21). Best Paper Nominee

[5] Alexis Hiniker, **Sharon Heung**, Sungsoo (Ray) Hong, and Julie A. Kientz. 2018. Coco's Videos: An Empirical

Investigation of Video-Player Design Features and Children's Media Use. Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems. Honorable Mention

## Awards & Fellowships

- Digital Life Initiative Doctoral Fellowship ($5,000)                                    2022
- ASSETS Best Paper Nominee  [3]                                                          2021
- Epperson Entrepreneurship Fund, Cornell University                                      2021
  *Start-up summer funding recipient ($5000)*
- NSF Graduate Research Fellowship (Tenure 2021- 2024)                                    2020
- First Year PhD Fellowship, Cornell University                                           2020
  *Awarded for exceptional potential & promise (top 1.5% of applicants)*
- Husky 100, University of Washington                                                     2018
  *Yearly recognition of 100 UW undergraduates and graduate student*
- CHI Honorable Mention [4]                                                               2018

## Research Experience

**Graduate Research Assistant**, Cornell University                        Sept 2020 - Present

*Hate, Harassment, and Discrimination Experienced by Disabled Content Creators*
*Advised by Aditya Vashistha & Shiri Azenkot*
- Conducted a survey study (n = 50)  and follow-up interviews (n=20)) with disabled content creators to understand their experiences with ableist  hate & harassment on social media
- Developed a taxonomy of ableist hate and harassment with 11 distinct types
- Modeled how intersecting identities including race, gender, and sexuality affects the amount of self-reported ableist hate and harassment, finding that LGBTQ disabled creators experience significantly more ableist hate and are predicted to experience a disproportionate amount of ableist hate compared to non-LGBTQ creators
- This study is included in the syllabus of Design for Accessibility class in UNC Chapel Hill (taught by William Payne)

*Ableist Microaggressions on Social Media*
*Advised by Aditya Vashistha, Megh Marathe, Shiri Azenkot*
- Led interviews understanding how disabled people experience microaggressions on social, and how they respond to cope with them
- Introduced 12 archetypes of ableist microaggressions, validating prior work's categories and introducing new types (e.g., being ignored and left on read)
- Presented design recommendations to reimagine social media to account for microaggressions
- This work has informed instructional documentation for teachers in  creating safer learning spaces for students with disabilities, distributed by the Babb Group.

*How Older Adults use Amazon Alexa to Support Their Social & Psychological Well-being*
*Advised by Robin Brewer & Shiri Azenkot*

- Conducted semi-structured interviews to understand how older adults in long-term communities routinely use their Amazon Alexa
- Discovered meaningful and adopted-use of older adults, using Alexa to support daily tasks, promote cognitive stimulation, manage emotions, and for entertainment.

*Response Bias in Accessibility Research*
*Advised by Aditya Vashistha & Shiri Azenkot*
- Explored how HCI researchers within accessibility meaningfully engage with people with disabilities to mitigate response bias
- Conducted remote semi-structured interviews and systematic literature review
- Created guidelines and recommendations of how to think about response bias during the research process

**UW Information School Undergraduate Research Assistant**                     Sept – June 2019
*With Kiley Sobel, Advised by Julie Kientz*
- Researched how children learn through apps, assessing effectiveness of passive media, interactive media, and in-person interaction
- Independently facilitated sessions with child & parent and collected data for this in-lab experiment

**UW Husky Adapt (Accessible Design and Play Technology) Researcher & Designer**       Sept - March 2017
- Designed and developed a working transfer device made from steel and a harness mechanism, allowing for independent transfers
- Led home interviews with an active co-designer who had muscular dystrophy
- Presented our affordable transfer device prototype at the UW Engineering Accessibility

**UW Computing for Healthy Living and Learning Laboratory Researcher**           Jan – Sept 2017
*With Alexis Hiniker, Advised by Julie Kientz*
- Examined how video-viewing platform design features impact children's media use by conducting a 3-week experimental deployment of tablets
- Recruited participants, created surveys, analyzed data (qualitative coding) and presented a poster summarizing study at the UW Undergraduate Research Symposium
- My work contributed to our findings that parents should avoid platforms with auto-play that undermine children's autonomy and intention [2].
- Results informed American Academy of Pediatrics' screen time guidelines and shared with YouTube Kids designers

# Industry Experience

**Google Student Researcher**                                          Sept 2023 - February 2024
Part-time student researcher at Google on the Privacy, Security, and Safety team.

**AT&T Experience Design Studio Research Coordinator**               July 2019 – July 2020
Led participant recruitment for the team and initiatives related to team efficiency. Conducted an internal survey study and a qualitative customer-facing research study on UserTesting.

**Expedia Group Product Management Intern**                          June – August 2018

Launched search engine marketing tests to increase conversion and created strategies, epics, user stories and mockups prioritized in the product backlog.

## Professional Activities

**Toyful, Co-Founder**                                                                                  Jan 2017 - September 2021

Co-founded a toy company focused around wellness through play, using non-screen based toys to promote socio-emotional skills and emotional literacy. We created BoBo, an emotional teaching teddy bear that validates children's feelings, encourages them to communicate their feelings, and teaches coping mechanisms.

- Conducted the full user-centered design process and co-designed with health professionals from Seattle Children's Hospital and children from UW KidsTeam
- Built a high fidelity prototype of BoBo using Arduinos, creating a functioning prototypes that is battery-chargeable and programmable
- Worked with Seattle Children's Hospital Intellectual Property Core to confirm novelty and patentability
- Interviewed customer groups to determine value proposition of the business (e.g.., parents of neurodivergent children vs. neurotypical children)
- Pitched company to other investors, founders, entrepreneurs
- Awarded funding for prototyping materials (HCDE Capstone Fund) and to work on the company full-time (Epperson Entrepreneurship Fund 2021)

**PhD Founder Track Summer, Dorm Room Fund**                                            June - September 2021

Attended weekly seminars and lecturers with guest speakers (founders, venture capitalists, professors etc…) and networked with like-minded, PhD founders.

**NSF I-Corps Short Course**                                                                          May 2021 - June 2021

Completed the NSF I-Corps Short Course that teaches researchers about entrepreneurship with a focus on the customer discovery and customer interview process.

**W.E Cornell - Women in Entrepreneurship at Cornell**                                    Sept – June 2021

Accepted into the W.E. Cornell Cohort, gained one-on-one mentorship and attended entrepreneurship workshops. Applied learned concepts to my company, Toyful, and presented progress to the cohort.

## Invited Talks & Workshops

- Design for Accessibility (taught by William Payne), UNC Chapel Hill 2024
- Computing & Global Development (taught by Aditya Vashistha), Cornell University          2024
- Conference paper presentation at CHI [2]                                                              2023
- Google Protecting At-Risk Users Workshop                                                             2023
- Human Computer Interaction Consortium (HCIC) - Supporting Online Trust and Safety,       2023
- Privacy, and Security
- Conference paper presentation at ASSETS [3]                                                       2022
- AI and Healthcare (taught by Rajalakshmi Nandakumar), Cornell Tech                             2021
- Conference paper presentation at ASSETS [4]                                                       2021

- Applied, remote summer internship program for designers ........... 2020
- UW Accessibility Engineering Showcase ........... 2018
- UW Undergraduate Symposium, poster presentation [5] ........... 2018

## Service & Leadership

- Reviewer for conferences:  CSCW & CHI ........... 2023 - Present
- Mentor, Cornell IS Mentorship Program ........... 2022 - Present
- Reviewer, IS Student-Applicant Reading Program (SARP) ........... 2020 - Present
- Student Volunteer at ASSETS ........... 2023
- PACT President, PhDs at Cornell Tech Student Organization ........... 2022 - 2023
- Wellness Officer, PhDs at Cornell Tech Student Organization ........... 2021 - 2022
- Special Olympics Member ........... 2018 - 2019
  *Sports organization for people with physical and intellectual disabilities*
- GlobeMed Member ........... 2016 - 2019
  *National organization focused on health equity*
- UW Medical Center Volunteer ........... 2015 - 2017
  *Volunteered as a wheelchair transport and in the Intensive Care Unit*
- Camp Casey Counselor Volunteer ........... 2014, 2015
  *Summer camp for kids with physical disabilities*

## Press Coverage

- "Alexa set the alarm for me to take my medication" | University of Michigan ........... 2023
- "Microaggressions have big impacts on disabled users online" | Cornell Chronicle ........... 2022
- "Overly positive feedback leads to poor assistive tech" | Cornell Chronicle ........... 2021
- "W.E. Cornell program takes on inequity in entrepreneurship" | Cornell Chronicle ........... 2021
- Summer PhD Founder Track Cohort | Dorm Room Fund Blog ........... 2021
- W.E. Cornell (Women in Entrepreneurship) Cohort ........... 2021
- HCDE Students awarded NSF Graduate Research Fellowship ........... 2020
- "Apps for children should emphasize parent and child choice, researchers say" | UW News ........... 2018
- Five HCDE students recognized in Husky 100 ........... 2018
- Announcing the Husky 100 ........... 2018

## Skills

- **Methods:** interviews, surveys, personas, ethnography, competitive analysis, journey maps, diary studies
- **Analysis:** affinity diagram, thematic analysis, quantitative data analysis, empathy mapping
- **Software:** User Zoom, dScout, User Testing, User Zoom, Survey Monkey, Omniture Data Analysis, Tableau, Qualtrics, Excel
- **Equipment:** eye-tracking glasses, galvanic skin response bracelet
- **Design:** wireframing (Adobe XD, figma) and physical prototyping/design (Arduinos, Rhino)
- **Technical:** R Studio, Java, Python, Arduinos (C/C++)

- **Other:** storytelling, public speaking,  slide presentation design