# KEVIN M. STORER

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## SUMMARY

I use human-centered design and qualitative research methods to build, deploy, and evaluate technologies to increase disabled people's access in socially complex domestic environments. My dissertation explores the use of Disability Rights tenets as orienting principles in designing accessible technologies for homes, through building and deploying a voice application to support blind-parent/child collaborative reading.

Themes:
Accessibility, Homes, Families, Collaboration, Voice Assistants, Disability Studies

Methods:
Interviews, Observations, Field Deployments, User-Centered Design, Focus Groups, Discourse Analysis

## EDUCATION

**Ph.D., Informatics,** University of California, Irvine — 2022 (Anticipated)
Dissertation Title: *A Deinstitutional Framework for Domestic Accessible Technology Design*
Advised by Stacy Branham

**M.S., Computer Science,** Clemson University — 2017
Thesis Title: *Nuanced Views of Pedagogical Evaluation*
Advised by Jacob Sorber

**B.S., Computer Science,** Bowling Green State University — 2015

## RESEARCH

### RESEARCH POSITIONS

2018- **University of California, Irvine** — Donald Bren School of Information & Computer Science
Graduate Research Assistant || Advisor: Stacy Branham
Leading research to design voice assistants to support blind parents in reading with their children, while examining sociocultural factors impacting families' adoption of accessible technologies.

2020 **Google Inc.** — Google Cloud Developer Experience Research
User Experience Research Intern || Host: Harini Sampath
Conducted remote observations and interviews with software developers who use screen readers to understand how accessibility in technical documentation affects the development experience.

2019 **Google Inc.** — Google Assistant User Experience Research
User Experience Research Intern || Host: Tejinder Judge
Conducted a pair interview study of parents with and without visual impairments to understand how mixed-visual-ability families use voice assistants in their domestic lives.

2017-18 **University of California, Irvine** — Donald Bren School of Information & Computer Science
Graduate Research Assistant || Advisor: Gloria Mark
Conducted experimental research to understand how push notification patterns affect knowledge workers' sympathetic stress levels while multitasking in the workplace.

2015-17 **Clemson University** — School of Computing
Graduate Research Assistant || Advisor: Jacob Sorber
Conducted research to understand how evaluations of post-secondary Computer Science pedagogy are impacted by underrepresentation of women in Computing.

## PUBLICATIONS

### Journal Articles

[J.1] Ali Abdolrahmani, **Kevin M. Storer**, Antony Rishin Mukkath Roy, Ravi Kuber, Stacy M. Branham. Blind Leading the Sighted: Drawing Design Insights from Blind Users towards More Productivity-oriented Voice Interfaces. *ACM Transactions on Accessible Computing* ***(TACCESS)****, Volume 12, Issue 4, January 2020, Article 18, 35 pages.*
[2 Year Impact Factor: 2.64] — Download

### Conference Proceedings Articles[1]

[C.7] **Kevin M. Storer**, Stacy M. Branham. Deinstitutionalizing Independence: Discourses of Housing in Accessible Computing. In *Proceedings of the ACM SIGACCESS Conference on Accessible Computing* ***(ASSETS '21)****, October 18-22, 2021, Online Event.*
[29% acceptance rate] — To Appear

[C.6] **Kevin M. Storer**, Harini Sampath, and M. Alice Merrick. "It's Just Everything Outside of the IDE that's the Problem": Information Seeking by Software Developers with Visual Impairments. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* ***(CHI '21)****, May 8–13, 2021, Yokohama, Japan.*
[26.3% acceptance rate] — Download — Presentation

[C.5] **Kevin M. Storer**, Tejinder K. Judge and Stacy M. Branham. "All in the Same Boat": Tradeoffs of Voice Assistant Ownership for Mixed-Visual-Ability Families. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* ***(CHI '20)****, April 25-30, 2020, Honolulu, HI, USA.*
[24% acceptance rate] — Download — Presentation

[C.4] **Kevin M. Storer**, Stacy M. Branham. "That's the Way Sighted People Do It": What Blind Parents Can Teach Technology Designers About Co-Reading with Children. In *Proceedings of the ACM SIGCHI Conference on Designing Interactive Systems* ***(DIS '19)****, June 23-28, 2019, San Diego, CA, USA.*
[25% acceptance rate, **Honorable Mention for Best Paper (Top 2%)**] — Download

[C.3] Fatema Akbar, Ayse Elvan Bayraktaroglu, Pradeep Buddharaju, Dennis Rodrigo Da Cunha Silva, Ge Gao, Ted Grover, Ricardo Gutierrez-Osuna, Nathan Cooper Jones, Gloria Mark, Ioannis Pavlidis, **Kevin Storer**, Zelun Wang, Amanveer Wesley, Shaila Zaman. Email Makes You Sweat: Examining Email Interruptions and Stress Using Thermal Imaging. In *Proceedings of the ACM SIGCHI Conference on Human Factors in Computing Systems* ***(CHI '19)****, May 4-9, 2019, Glasgow, Scotland*.
[23.8% acceptance rate] — Download

[C.2] Josiah Hester, **Kevin Storer**, Jacob Sorber. Timely Execution on Intermittently Powered Batteryless Sensors. In *Proceedings of the ACM Conference on Embedded Network Sensor Systems* ***(SenSys '17)****, November 5-8, 2017, Delft, The Netherlands.*
[17.2% acceptance rate] — Download

[C.1] Josiah Hester, Travis Peters, Tianlong Yun, Ronald Peterson, Joseph Skinner, Bhargav Golla, **Kevin Storer**, Steven Hearndon, Kevin Freeman, Sarah Lord, Ryan Halter, David Kotz, Jacob Sorber. Amulet: An Energy-Efficient, Multi-Application Wearable Platform. In *Proceedings of the ACM*

[1] In my field, conferences are prestigious publication venues, where articles are rigorously peer-reviewed and archived.

*Conference on Embedded Network Sensor Systems* ***(SenSys '16)****, November 14-16, Stanford, CA, USA.* [17.6% acceptance rate] — Download

### Workshop Papers, Conference Posters, and Demonstrations (Lightly-Reviewed)

[LR.7] **Kevin M. Storer**. A Deinstitutional Perspective on Domestic Accessibility: Three Tenets for Accessible Computing Research in Homes. *Human Computer Interaction Consortium* ***(HCIC '21)****, June 21-24, 2021, Online Event.*

[LR.6] **Kevin M. Storer**. Social Interaction as Sensory Augmentation?. *Rethinking the Senses: A Workshop on Multisensory Embodied Experiences and Disability Interactions, ACM SIGCHI Conference on Human Factors in Computing Systems* ***(CHI '21)****, May 8–13, 2021, Yokohama, Japan.*

[LR.5] **Kevin M. Storer**, Stacy M. Branham. Reframing Homes and Families in Accessibility. *Nothing About Us Without Us: Investigating the Role of Critical Disability Studies in HCI, ACM SIGCHI Conference on Human Factors in Computing Systems* ***(CHI '20)*** *April 25-30, 2020, Honolulu, HI, USA.*

[LR.4] Shengjie Bi, Ellen Davernport, Jun Gong, Ronald Peterson, Joseph Skinner, **Kevin Storer**, Tao Wang, Kelly Caine, Ryan Halter, David Kotz, Kofi Odame, Jacob Sorber, Xing-Dong Yang. Poster: Auracle: A Wearable Device for Detecting and Monitoring Eating Behavior. In *Proceedings of the ACM Annual International Conference on Mobile Systems, Applications, and Services* ***(MobiSys '17)****, June 19-23, 2017, Niagara Falls, NY, USA.*

[LR.3] Matthew Furlong, Josiah Hester, **Kevin Storer**, Jacob Sorber. Realistic Simulation for Tiny Batteryless Sensors. In *Proceedings of the International Workshop on Energy Harvesting and Energy-Neutral Sensing Systems* ***(ENSsys '16)****, November 14-16, 2016, Stanford, CA, USA.*

[LR.2] Josiah Hester, Travis Peters, Tianlong Yun, Ronald Peterson, Joseph Skinner, Bhargov Golla, **Kevin Storer**, Steven Hearndon, Kevin Freeman, Sarah Lord, Ryan Halter, David Kotz, Jacob Sorber. The Amulet Wearable Platform: Demo Abstract. In *Proceedings of the 14th ACM Conference on Embedded Network Sensor Systems* ***(SenSys '16)****, November 14-16, 2016, Stanford, CA, USA.*

[LR.1] Josiah Hester, **Kevin Storer**, Lanny Sitanayah, Jacob Sorber. Towards A Language and Runtime for Intermittently-Powered Devices. *Workshop on Hilariously Low-Power Computing, ACM International Conference on Architectural Support for Programming Languages and Operating Systems* ***(ASPLOS '16)****, April 2-6, 2016, Atlanta, GA, USA.*

## GRANTS AND FELLOWSHIPS

2019 **$5,000** — Bob and Barbara Kleist Endowed Graduate Fellowship (UC Irvine)

2017 **$5,000** — Information & Computer Sciences Dean's Recruitment Award (UC Irvine)

# TEACHING

## TEACHING POSITIONS

WQ'19 **Marginalized Digital Embodiments** — University of California, Irvine
Course: INF 299 || Instructor: Stacy Branham || Student Evaluations Not Elicited
Served as one of two organizers of a graduate-level, discussion-based course on interaction design for marginalized groups. Designed the course syllabus and led weekly discussions.

SQ'18 **Interactive Technology** — University of California, Irvine
Course: INF 285 || Instructor: Don Patterson || Student Evaluations Not Elicited
Served as one of two teaching assistants for a course of 30+ Master's students, provided feedback on assignments, moderated discussions, and instructional programming sessions.

WQ'18 **Project Management** — University of California, Irvine
Course: INF151 || Instructor: Alexander Cho || Student Evaluations (Mean): 8.77/9.00
Served as the teaching assistant for a course of 50+ Bachelor's students developed course materials, provided feedback on assignments, and held class lectures in the instructor's absence.

FQ'17 **Project Management** — University of California, Irvine
Course: INF 151 || Instructor: Gloria Mark || Student Evaluations (Mean): 8.52/9.00
Served as the teaching assistant for a course of 120+ Bachelor's students, developed course materials, provided feedback on assignments, and held class lectures in the instructor's absence.

FQ'15 **Computer Organization** — Clemson University
Course: CPSC 2310 || Instructor: Rose Lowe || Student Evaluations Not Elicited
Served as one of two teaching assistants for a course of 75+ students, held lab sessions three times weekly, where I taught students to program in assembly language.

## GUEST LECTURES

[GL.9] "*Pragmatism, Embodiment, and Experience.*" — Fall 2018
**INF295: Mobile Learning Technologies,** UC Irvine. Taught by Kurt Squire.

[GL.8] *"Agile Software Development."* — Winter 2018
**INF151: IT Project Management,** UC Irvine. Taught by Alex Cho.

[GL.7] *"Time Management."* — Winter 2018
**INF151: IT Project Management,** UC Irvine. Taught by Alex Cho.

[GL.6] *"Human Resource Management."* — Fall 2017
**INF151: IT Project Management,** UC Irvine. Taught by Gloria Mark.

[GL.5] *"Teams and Conflict."* — Fall 2017
**INF151: IT Project Management,** UC Irvine. Taught by Gloria Mark.

[GL.4] *"Developing Software for Error-Prone Devices."* — Fall 2016
**CPSC4820: Embedded Systems,** Clemson University. Taught by Jacob Sorber.

[GL.3] *"Allocating and Managing Virtual Memory."* — Spring 2016
**CPSC3220: Operating Systems,** Clemson University. Taught by Jacob Sorber.

[GL.2] *"Drag Performance and Gender Identity."* — Spring 2015
**PSYC3070: Human Sexuality,** Bowling Green State University. Taught by Robert Kirk.

[GL.1] *"Drag Performance and Gender Identity."* — Spring 2014
**PSYC3070: Human Sexuality,** Bowling Green State University. Taught by Robert Kirk.

## INVITED TALKS

[IT.4] *"Blind-Parent/Child Reading and Deinstitutional Views of Home"*
**Steckler Center for Responsible, Ethical, and Accessible Technology**, Irvine, CA. 03/15/2021.

[IT.3] *"Writing Accessible Technical Documentation."*
**Google User Experience Research,** Seattle, WA. 12/07/2020.

[IT.2] *"Non-Visual Accessibility in Technical Information Seeking."*
**Google User Experience Research,** Seattle, WA. 09/25/2020.

[IT.1] *"Understanding Voice Assistant Use in Mixed-Visual-Ability Families."*
**Google User Experience Research,** Mountain View, CA. 12/11/2019.

### STUDENT MENTORSHIP

2021- **Hannah Bowman:** M.S. Human Factors, San Jose State || **Now:** Ph.D. Informatics, UC Irvine

2021 **Nandhana Sathish:** B.S. Informatics, UC Irvine || **Now:** Software Developer, Microsoft (Fall 2021)

2020- **Maya Gupta:** M.S. Informatics, UC Irvine || **Now:** Ph.D. Informatics, UC Irvine

2020- **Julie Oh:** B.S. Informatics, UC Irvine || **Now:** Ph.D. Informatics, UC Irvine

2020- **Ethan Vu:** M.S. Informatics, UC Irvine || **Continuing:** M.S. Informatics, UC Irvine

## SERVICE

### ACADEMIC SERVICE

2020 **Paper Session Co-Chair,** ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '20)

2020 **Papers Accessibility,** ACM Conference on Human Factors in Computing (CHI '20)

2020 **Reviewer,** ACM Conference on Human Factors in Computing (CHI '20)

2019 **Reviewer,** Mind, Culture, and Activity: An International Journal (Taylor & Francis)

2019 **Member,** SIGCHI Working Group on Promoting Accessibility to Support Inclusive Events (ACM)

2016 **Reviewer,** Information Processing in Sensor Networks, Shadow TPC (ACM/IEEE)

### UNIVERSITY SERVICE

2021 **Member,** Accessibility Research Collective (Multi-Institutional Collaboration)

2021 **Member,** Steckler Center for Responsible, Ethical, and Accessible Technology (UC Irvine)

2019-21 **Prospective Student Outreach,** Graduate Student Recruitment (UC Irvine)

### COMMUNITY SERVICE

2019 **Adult Literacy Instructor,** OC READ at the Orange County Public Library System

2019 **Adult Literacy Instructor,** City of Orange Public Library Foundation

## PRESS COVERAGE

2020 **UCI News.** *Building Tomorrow's AI: Smarter and Fairer.* 10/01/2020.