

RESEARCH AREAS:

human-computer interaction (HCI) and computer-supported collaborative work (CSCW); infrastructure studies; environmental studies; science and technology studies; critical making and design research

EDUCATION

- 2018 – 2025 (expected) Ph.D, Information Science
Cornell University, Ithaca, NY
Dissertation: “Climate Change and Networked Infrastructures in Southeast Louisiana”
Committee: Steven Jackson (chair), Phoebe Sengers, Jenny Goldstein
- 2018 – 2021 Master of Science, Information Science
Cornell University, Ithaca, NY
- 2015 – 2017 Master of Tangible Interaction Design
Carnegie Mellon University, Pittsburgh, PA
Thesis: “Field Computing: Tools for Collaborative Survival”
Committee: Daragh Byrne (Chair), Golan Levin, Eddy Man Kim
- 2008 – 2012 BFA Fiber Arts, summa cum laude
Maryland Institute College of Art, Baltimore, MD

RESEARCH APPOINTMENTS

- 2023 – 2025 Research Fellow, Critical Infrastructure Lab
University of Amsterdam
- 2020 – 2024 Research Assistant, Cornell University (advised by Phoebe Sengers)
NSF #1955125: “Understanding and Improving the Social Impact of High-Bandwidth Farm Networking Infrastructure”
- Summer 2019 Graduate Summer Researcher
Cornell Initiative for Digital Agriculture
- 2015 – 2017 Research Assistant, Carnegie Mellon University (advised by Marti Louw)
NSF Grant: #1623969: “Learning to See, Seeing to Learn: A Sociotechnical System Supporting Taxonomic Identification Activities in Water Quality Biomonitoring”

PUBLICATIONS

Refereed Articles

(under submission) Hannah Friedrich*, Yajaira Ayala*, **Jen Liu***, Melissa Villareal*. “Positionalities in Disaster Recovery Research: Reflections from Fieldwork across the Gulf South.” *contributed equally

(forthcoming) **Jen Liu** and Cindy Lin. 2024. “What Worlds are We Designing For?” Proceedings of the Halfway to the Future Conference.

Gloire Rubambiza, Phoebe Sengers, Hakim Weatherspoon, and **Jen Liu**. 2024. "Seam Work and Simulacra of Societal Impact in Networking Research: A Critical Technical Practice." Proceedings of the ACM CHI Conference of Human Factors in Computing Systems (CHI '24). <https://doi.org/10.1145/3613904.3642337>

Jen Liu. 2023. "Under Pressure: Keeping Cables Dry in South Louisiana." Journal of Environmental Media, Volume 4, Issue 1. P. 91-94. https://doi.org/10.1386/jem_00098_1

Jen Liu. 2023. "Unpacking Intermittency: A Case study from Southeast Louisiana." Proceedings of the Ninth Workshop on Computing within Limits. LIMITS.

Jen Liu and Phoebe Sengers. 2021. "Legibility and the Legacy of Racialized Dispossession in Digital Agriculture." Proceedings in ACM Human-Computer Interaction. 5, CSCW, Article 480 (October 2021). <https://doi.org/10.1145/3479867> **Honorable Mention Award**

Joselyn McDonald*, Siyan Zhao*, **Jen Liu***, Michael Riviera. 2018. "MaxiFab: Applied Fabrication to Advance Menstrual Technologies." DIS Works in Progress: Proceedings of the 2018 Designing for Interactive Systems Conference (DIS). <https://doi.org/10.1145/3197391.3205405>
*contributed equally

Jen Liu, Daragh Byrne, Laura Devendorf. 2018. "Designing for Collaborative Survival: An Inquiry into Human-Fungi Relationships." Proceedings of the CHI Conference on Human Factors in Computing Systems (CHI '18). <https://doi.org/10.1145/3173574.3173614> **Best Paper Award**

Jen Liu. 2017. "Field Computing: Wearable Devices for Citizen Science Applications." TEI Works in Progress: Proceedings of the 2017 Tangible, Embedded and Embodied Interaction Conference. <https://doi.org/10.1145/3024969.3025072>

Book Chapters

(*Forthcoming*) Steve Jackson, **Jen Liu**, Ranjit Singh, Samir Passi. "Maintaining Data Infrastructures." SAGE Handbook on Data & Society.

Essays, Public Scholarship, and Other Published Materials

Eleonora Mencarini, Valentina Nisi, Christina Bremer, Chiara Leonardi, Nun Jardim Nunes, **Jen Liu**, and Robert Soden. 2024 "Imagining Sustainable Futures: Expanding the Discussion on Sustainable HCI." *interactions*, Volume 31, Issue 2. P 39-43. <https://doi.org/10.1145/3643493>

Remy Hellstern and **Jen Liu**. 2023. "Lessons from Storms and Wetlands: Rethinking disaster response for communication infrastructures." Issue 6, Branch Magazine. <https://branch.climateaction.tech/issues/issue-6/lessons-from-storms-and-wetlands/>

Jen Liu. 2023. "Living with Intermittent Infrastructures." Sun Thinking exhibit hosted by Solar Protocol. <http://solarprotocol.net/sunthinking/#liu>

Jen Liu. 2022. "How to get to the end of the world." *interactions* 29, (January - February 2022), 39–43. <https://dl.acm.org/doi/10.1145/3501291>

Jen Liu and Camille Baumann-Jaeger. "Dissenting Jabots." *Disobedient Electronics*. Ed. Garnet Hertz. Vancouver. 2017.

Jen Liu. 2014. “Butt Blinkers.” Featured project in Make: Wearable Electronics. Sebastopol: Maker Media. 2014.

Peer Reviewed Extended Abstracts

Olivia Doggett, **Jen Liu**, Ufuoma Ovienmhada, Samar Sabie, Sarah Gram, Laura J Perovich, Matt Ratto, and Robert Soden. 2023. Environmental and Climate Justice in Computing. In Companion Publication of the 2023 Conference on Computer Supported Cooperative Work and Social Computing (CSCW '23 Companion). <https://doi.org/10.1145/3584931.3611296>

Sebastian Prost, Nick Taylor, Angelika Strohmayr, Henry Collingham. Débora de Castro Leal, Max Krüger, **Jen Liu**, Clara Crivellaro, John Vines. 2023. “Bringing Sustainability through, in, and of HCI into Conversation.” In Proceedings of the 2023 Designing Interactive Systems Conference: DIS '23. <https://doi.org/10.1145/3563703.3591459>

Eleonora Mencarini, Christina Bremer, Chiara Leonardi, **Jen Liu**, Valentina Nisi, Nuno Jardim Nunes, Robert Soden. 2023 “HCI for Climate Change: Imagining Sustainable Futures.” In Proceedings of the 2023 CHI Conference: CHI 23'. <https://doi.org/10.1145/3544549.3573833>

Esther Jang, Nicola Bidwell, **Jen Liu**, Phoebe Sengers, Naveen Bagalkot, Nervo Verdezoto, Melissa Densmore, Morgan Vigil-Hayes, Shaddi Hasan. 2022. “Situating Network Infrastructures with People, Practices, and Beyond: A Community Building Workshop.” In Proceedings of the 2022 CSCW Conference: CSCW 22'. <https://doi.org/10.1145/3500868.3560716>

Jen Liu. 2022. Hanging on a Wire: Understanding the Impacts of Climate Change on Networked Infrastructures in South Louisiana. In Extended Abstracts of the 2022 CHI Conference on Human Factors in Computing Systems (CHI EA '22). Association for Computing Machinery, New York, NY, USA, Article 70, 1–5. <https://doi.org/10.1145/3491101.350381>

Jen Liu, Cindy Lin, Anne Pasek, Lace Padilla, Robert Soden, Daniela Rosner, and Steve Jackson. 2022. “Towards a Material Ethics of Computing: Addressing the Uneven Stakes of Digital Infrastructures.” In Proceedings of the 2022 CHI Conference: CHI 22'. <https://doi.org/10.1145/3491101.3505649>

Natalie Friedman, Kari Love, Alexandra Bremers, A.J. Parry, Ray LC, Bolor Amgalan, **Jen Liu**, and Wendy Ju. 2021. Designing Functional Clothing for Human-robot Interaction. In Companion of the 2021 ACM/IEEE International Conference on Human-Robot Interaction (HRI '21 Companion). Association for Computing Machinery, New York, NY, USA, 703–705. <https://doi.org/10.1145/3434074.3444870>

Szu-Yu (Cyn) Liu, **Jen Liu**, Kristin Dew, Patrycja Zdziarska, Maya Livio, and Shaowen Bardzell. 2019. “Exploring Noticing as Method in Design Research.” In Proceedings of the 2019 Designing Interactive Systems Conference: DIS '19. <https://doi.org/10.1145/3301019.3319995>

INVITED TALKS, PRESENTATIONS and WORKSHOPS

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| 2024 | Invited participant. Consortium for the Science of Sociotechnical Systems (CSST) Summer Research Institute. Irvine, California. |
| 2023 | “Internet in Extractive Landscapes: A Case Study from Southeast Louisiana.” As part of panel on “Digital infrastructures and environmental justice: policies, practices, and visions.” Association for Internet Researchers Conference. |

- 2023 Invited participant. Green Screen Climate Justice and Digital Rights Coalition Gathering, San Jose, Costa Rica.
- 2022 “Hanging on a Wire: Utility Pole Maintenance in Southeast Louisiana.” Terrestrial Internet Panel, 4S (Society for Social Studies of Science) Annual Meeting.
- 2022 “Bayou Infrastructures: Keeping the Internet on in South Louisiana.” Computational Design Speaker series, Carnegie Mellon University.
- 2021 “Technologies of Land Dispossession: Digital Agriculture and Legibility.” Networking Rurality Panel, 4S (Society for Social Studies of Science) Annual Meeting.
- 2020 *(interrupted due to COVID-19)* “Race to the Bottom: Racial Identity and Implications for Digital Agriculture”. Rurality, Identity, and Digital Technology panel, Rural Sociological Society Meeting.
- 2019 “Internet of Dirt: Understanding Challenges of Adoption and Maintenance of Digital Agricultural Technologies”. Science Studies Reading Group, Cornell University
- 2019 “Internet of Dirt: Maintaining Agricultural IoT Systems”. Information Infrastructures panel, Maintainers III: Practice, Policy, and Care., Gallaudet University.
- 2019 “Reconsidering the Coalpit”. Critical and Imaginative Restoration Ecologies panel, Dimensions of Political Ecology, University of Kentucky.
- 2018 “Tools for Collaborative Survival” MALfunction, Media Archaeology Lab, University of Colorado, Boulder.
- 2016 “Soft Fabrication: A Skills-Based Micro Course”. Teaching and Learning Summit, Carnegie Mellon University.
- 2016 Invited participant, a2ru Emerging Creative Student Summit, University of Michigan.
- 2014 “Soft Circuits”. Textile Futures panel, Studio Art Quilt Association.

TEACHING

Primary Instructor

- S16, F16, S17 Soft Fabrication Skills Micro-course (IDeATe 99-352)
Carnegie Mellon University, Co-instructed with Susan Finger

Teaching Assistant

- S20 Information Ethics, Law, and Policy (INFO 1200)
Cornell University, Co-Instructors: Steven Jackson & Karen Levy
- F19 Human Computer Interaction and Design (INFO 3450)
Cornell University, Instructor: Gilly Leshed
- S19 Information Ethics, Law, and Policy (INFO 1200)
Cornell University, Instructor: Steven Jackson
- F18 Designing Technologies for Social Impact (INFO 4240)
Cornell University, Instructor: Phoebe Sengers

Guest Lecturer

- F21 “Understanding technology development, use, and maintenance”
Rural Communities (EDUC 3250), Cornell University
- S18 “Intro to Soft Circuits”
Designing for Curiosity (ATLS 5519), University of Colorado, Boulder
- F17 “Intro to Soft Circuits”
Physical Computing Interfaces (ATLS 4519), University of Colorado, Boulder
- S14 “Noise Sweater”
Systems Thinking: Smart Textiles (FB 287), Maryland Institute College of Art

Workshop Lead

- 2018 “Powered by Muck: A Microbial Fuel Cell Workshop”, Civic Art Lab, New York, NY
- 2018 “Terms of Subversion: A DIY Terms of Service Creative Coding Workshop”, co-organized
with Brianna Dym, MediaLive Festival, Boulder, CO
- 2014 “Soft Circuits Public Workshop”, Ripple Gallery, Rockville, MD
- 2014 “Paper Circuits”, Maryland Art Education Association, Ellicott City, Maryland
- 2013 “Intro to Soft Circuits”, Interactive Telecommunications Program, New York, NY

SCHOLARSHIPS and GRANTS

- 2022 NSF Doctoral Dissertation Research Improvement Grant #2147052
- 2021 QuIRi small grant, Cornell University
- 2021 /Art Microgrant recipient, Cornell Tech
- 2020 Critical Perspectives on Disaster Data Research Award, Co-Risk Labs
- 2020 Paul Evans Peters Doctoral Fellowship, Coalition for Networked Information
- 2020 (*interrupted due to COVID-19*) Rural Sociology Society Diversity Travel Grant
- 2019 Cornell Initiative for Digital Agriculture Summer Stipend Award
- 2019, 2020 Graduate School Conference Travel Grant Award, Cornell University
- 2018 Partial NEST Grant awardee with Laura Kim, University of Colorado, Boulder
- 2016 Graduate Travel Scholarship, Carnegie Mellon University
- 2016 Frank-Ratchye Fund for Art @ the Frontier Grant, Studio for Creative Inquiry
Carnegie Mellon University
- 2015 Graduate Studies Scholarship, Carnegie Mellon University
- 2008 – 2012 Full tuition scholarship, Maryland Institute College of Art
- 2011 Nancy Lee Rhodes Robert ’39 Scholarship, Maryland Institute College of Art

HONORS and AWARDS

- 2021 ACM CSCW 2021 Honorable Mention Award
- 2018 ACM CHI 2018 Best Paper Award
- 2013 30 Creative Minds Under 30, Maryland Art Place, Baltimore, MD

2012 Fiber Department Recognition Award, Maryland Institute College of Art
2010 Achievement Award, Maryland Institute College of Art
2008 – 2012 Dean’s List, Maryland Institute College of Art
2008 U.S. Presidential Scholar in the Arts

SERVICE

Field-based Service

2024 Reviewer for ACM CSCW
Received Special Recognition for Outstanding Review: 2024
2024 Reviewer for Journal of Environmental Media
2024 Reviewer for ACM Creativity & Cognition
2023 Reviewer for ACM COMPASS
2021 Reviewer for Culture, Agriculture, Food, and Environment
2017 – 2024 Reviewer for ACM Conference on Human Factors in Computing Systems (CHI)
Received Special Recognition for Outstanding Review: 2020, 2023, 2024
2017 – 2024 Reviewer for ACM Conference on Designing Interactive Systems (DIS)
Received Special Recognition for Outstanding Review: 2020, 2021
2019 – 2020 Reviewer for ACM Conference on Tangible, Embedded, and Embodied Interaction (TEI)
2019 Student Volunteer, ACM Designing Interactive Systems (DIS)

University-based Service

2020 – 2022 Seminar Coordinator, Information Science Graduate Student Association, Cornell University
2019 – 2021 First year mentor, Information Science Department, Cornell University
2019 – 2020 Engineering Teaching Assistant Development Consultant, Cornell University
2019 – 2020 President, Information Science Graduate Student Association, Cornell University
2019 – 2020 Visit Day Organizing Committee, Information Science, Cornell University
2018 – 2020 Vice President, Cornell Mapping Society, Cornell University
2016 Selection Committee, Teaching Innovation Award, Carnegie Mellon University

PROFESSIONAL EXPERIENCE

2022 Just Transition Researcher
Healthy Gulf, New Orleans, LA
2016 Smart Textile Design and Engineering Intern
Welspun USA, Pittsburgh, PA and New York, NY
2013 – 2015 DIY / Makerspace Manager, Education and Outreach Department
Maryland Science Center, Baltimore, MD
2012 – 2014 Workshop Leader / Maker-in-Residence
FutureMakers, Baltimore, MD