RESEARCH STATEMENT

I am a Human-Computer Interaction (HCI) researcher and an award-winning product designer. My work engages with the sociotechnical dimensions of technology. My primary research focuses include non-anthropocentric HCI, sustainable and, environmental justice, community participation, data feminism, and urban informatics. Methodologically, I take a cross-disciplinary approach combining social science methods (e.g., ethnography, interview, survey), arts-and-design approaches (e.g., research through design, material probe, co-design), and methods from the humanities (e.g., design criticism, close reading). As a technology and design researcher, my goal is to develop new theories, methodologies, and applications to promote accessibility, inclusion, participation, and sustainability through design.

EDUCATION

2016 – 2020  Ph.D., Human-Computer Interaction (Informatics), Indiana University, Bloomington IN, USA
Dissertation: Posthuman Interaction Design: Designing with, through, and for Human-Nature Interaction
Advisors: Dr. Jeffrey Bardzell and Dr. Shaowen Bardzell

2016 – 2018  M.S., Human-Computer Interaction (Informatics), Indiana University, Bloomington IN, USA
Advisors: Dr. Jeffrey Bardzell and Dr. Shaowen Bardzell

Thesis: Surrealism Expression in Product Design
Advisor: Dr. Jeng-Nang Fan

2011 – 2012  Full-Time Endowed Student, Product Design, Art Center College of Design, Pasadena CA, USA

2006 – 2010  B.Des., Product Design (honors), Taiwan Tech, Taipei, Taiwan
2008  Exchange Student, Product Design (honors), College for Creative Studies, Detroit MI, USA

EMPLOYMENT

Aug 2016 – Present  Indiana University, Graduate Researcher, Bloomington IN, USA
Design and led multi-sited ethnographic fieldwork on an NSF-funded project to study bottom-up innovation, experimental farming, and environmental sensing—resulting in multiple peer-reviewed publications, workshops, and presentations.

Jan 2020 – May 2020  Snap Research, Research Intern, Seattle, WA, USA
Led a mixed method field study combining national surveys and semi-structured interviews to understand the full landscape of collocated interactions. Identified product development opportunities and outlined design guidelines for engaging, enriching, and augmenting in-person activities.

May 2019 – Aug 2019  Microsoft Research + AI, Research Intern, Redmond, WA, USA
Designed and conducted qualitative design fieldwork to study the experiences, perceptions, and implicit knowledge people have with the air and air pollution. Proposed design strategies and considerations of augmenting environmental measurements to encourage environmental awareness and policy reform.

Mar 2015 – May 2016  ASUS, User Experience Researcher, Taipei, Taiwan
Worked with a research and strategy team to conduct user studies, trend analyses, and cross-functional co-design sessions; laid out 3-10 years of business roadmap that is currently being adopted to align brand image and define new product pathways. Developed and embedded research templates in cross-
functional teams to foster a collaborative culture with and advocated user-centered design thinking. Conducted user research that led to the launch of multiple hardware and software products.

_Mar 2014 – Mar 2015_ ASUS, **Product Designer**, Taipei, Taiwan
Led the design of the award-winning Google On-Hub router and VivoMini PC; involved in the entire product development process from ideation to mass production. Brainstormed use case scenarios and prototyped design proposals on various pioneering products/services.

_Sep 2010 – Dec 2013_ Taiwan Tech, **Graduate Research Assistant**, Taiwan Tech, Taipei, Taiwan
Assisted in brainstorming and creating 3D prototypes to study load bearing structure using sheet material. Designed and conducted anthropological fieldwork to identify strategies of improving user experiences in product design.

_May 2010 – Dec 2010_ Yuntech, **Research Assistant**, Yunlin, Taiwan
Conducted and analyzed semi-structured interviews with design practitioners to investigate the mechanisms of creativity. Project funded by National Science Council, Taiwan.

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**AWARDS**

**Research Funding**

- **2021 – 2022** National Science Foundation, USA
  - CIFellow. *From Data to Knowledge: Environmental Sensing and Data Narration* ($253,800)
- **2017 – 2019** Ministry of Education, Taiwan
  - Ph. Civic Making: Bottom-Up Innovation and IoT Proposition in Taiwan ($32,000)

**Best Paper and Honorable Mention Awards**

- **2019** ACM CHI 2019 Honorable Mention Award (2 awards)
- **2019** ACM TEI 2019 Honorable Mention Award

**Research and Travel Awards**

- **2019** ACM Graduate Student Travel Award. NSF. $1,500
- **2019** GISA Spring 2019 Travel Award, Indiana University. $950
- **2019** SICE HCI/d Travel Award. Indiana University. $950
- **2019** Department Nominee of the Wells Graduate Fellowship, Indiana University. $42,000
- **2019** GPSG Travel Award. Graduate Professional Student Government, Indiana University. $500
- **2017** ACM Graduate Student Travel Award. NSF. $2,000
- **2016** Government Fellowship for Overseas Study. Ministry of Education, Taiwan. $51,000
- **2010** Graduate Student Fellowship. College of Design, Taiwan Tech, Scholar Grant. $2,400
- **2010** Valedictorian, School of Design, Class of 2010, Taiwan Tech

**Design Awards**

- **2015** Winner, Good Design Award, “ASUS VivoMini (UN62)”
- **2013** Finalist, Taiwan International Design Competition, “Turn: pencil extender”
- **2012** Winner, IF Concept Award, “Go Dutch: bill redesign”
- **2010** Honorable Mention, Nagoya Design Do! Competition, “Save Energy, Save Me: wind slot sticker”
- **2010** Sponsor Award, Taipei Industrial Design Award, “Under the Tree: bus stop redesign”
- **2009** Honorable Mention, Universal Design Award, “Wave: universal cutting board”

**Service Awards**

- **2021** Special Recognitions for Outstanding Reviews (5 awards). ACM CHI 2021
- **2020** Special Recognitions for Outstanding Reviews. ACM CHI 2020

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**PUBLICATIONS**

**Refereed Conference Publications**


**Referred Conference Abstracts and Extended Abstracts**


**Book Chapters (Editor-Reviewed)**


**TEACHING EXPERIENCE**

**Research Group Mentorship**

2017 - 2019 Ethnographic Fieldwork and Research Through Design on Experimental Farming
Cultural Research in Technology (CRIT) group; PI: Shaowen Bardzell and Jeffrey Bardzell
Individual Student Mentorship

2019  Dominic Matthys (Undergraduate Research Opportunities in Computing)
2019  Noor Hussein (Undergraduate Research Opportunities in Computing)
2019  Pei-Ni Chiang (Master student in HCI/d)
2019  Lu Xi (Master student in HCI/d)
2018  Wei Zheng (Undergraduate Research Opportunities in Computing)

Assistant Instructor

2018 - 2020  SICE, Indiana University, Bloomington IN, USA
I453: Computer & Information Ethics (Fall, 2020)
I694: Thesis in Human-Computer Interaction (Spring 2018, Spring 2019)
I544: Experience Design (Fall 2019)

2013  College of Design, Taiwan Tech, Taipei, Taiwan
DT5017701: Anthropological Approach in Design (Spring, 2013)

2011  Department of Product Design, Art Center College of Design, Pasadena CA, USA
PRD252: Visual Communication IV (Winter 2011)

EXHIBITIONS

2015  Good Design Exhibition, Tokyo, Japan
2013  The Art & Design Elite Scholarship Program Press Conference, Taipei, Taiwan
2012  Student Gallery, Art Center College of Design, Pasadena CA, USA
2012  Dwell Design Exhibition, Los Angeles CA, USA
2011  Taiwan Designers’ Week, Taipei, Taiwan
2010  Taiwan Designers’ Week, Taipei, Taiwan
2010  Young Designers’ Exhibition (YODEX), Taipei, Taiwan

INVITED TALKS

2019  Qualitative Methods for Social Science Studies. S110 Understanding Social Data. Indiana University Department of Sociology. Guest Lecture
2019  Mapping Air: Hyper-Local Perceptions of Pollution. Microsoft Research Redmond Lab HCI Intern Talk
2016  International Design Trends (with Dr. Jeng-Nang Fan). National Education Radio, Taipei, Taiwan
2013  The Art & Design Elite Scholarship Program Press, Taipei, Taiwan
2011  School of Design Admission Seminar, Taiwan Tech, Taipei, Taiwan

PROFESSIONAL ACTIVITIES AND SERVICES

Conference Program Committee

2021  ACM CHI Design Subcommittee Associate Chair: Yokohama, Japan
2020  ACM CHI Late Breaking Works (LBWs) Track Associate Chair: Honolulu HI, USA
2019  ACM DIS Pictorial Track Associate Chair: San Diego, CA, USA

Conference Organizing Committee

2019  ACM DIS Student Volunteer Co-Chair: San Diego, CA, USA
2019  ACM TEI Social Media Chair: Tempe, Arizona, USA

Conference Student Volunteer

2020  ACM CHI (ACM Conference on Human Factors in Computing Systems, Honolulu HI, USA)
2019  ACM DIS (ACM Conference on Designing Interactive Systems, San Diego CA, USA)
Conference Peer Reviewer


Community Services

2018 - Present  Ambassador, Informatics Graduate Studies Office, Indiana University, Bloomington IN, USA
2017 - Present  Student Volunteer, Prospective Student Visit, SICE, Indiana University, Bloomington IN, USA
2016  Mentor, GU2IU Prospective Student Program, SICE, Indiana University, Bloomington IN, USA
2016  Coordinator, Industry-University Collaboration, ASUS Design Center, Taipei, Taiwan
2005 - 2016  Mentor, ASUS Foundation Community Service, ASUS, Taipei, Taiwan
2009 - 2010  Co-Director, Graduation Show, Taiwan Tech, Taipei, Taiwan