RESEARCH STATEMENT

My research focuses on sustainable HCI and human-nature interaction to address challenges associated with climate change. Specifically, I investigate collaborative making, experimental farming, and environmental sensing— all standing in the intersection of human activity, computing, and the biosphere. Building on my background in design, my research combines qualitative social science methods such as ethnography, interviewing, and observation, as well as arts-and-design approaches, such as research through design and speculative design. As a technology and design researcher, my goal is to develop new theories, methodologies, and applications for sustaining both human and non-human life.

EDUCATION

- **2016 – 2020 (expected)** Ph.D., Human-Computer Interaction (Informatics), Indiana University, Bloomington IN, USA
  Advisors: Dr. Jeffrey Bardzell and Dr. Shaowen Bardzell
- **2016 – 2018** M.S., Human-Computer Interaction (Informatics), Indiana University, Bloomington IN, USA
- **2010 – 2013** M.Des., Product Design, Taiwan Tech, Taipei, Taiwan
  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
  Exchange Student, Product Design (honors), College for Creative Studies, Detroit MI, USA

RESEARCH EXPERIENCE

- **Jan 2020 – May 2020** Research Intern, Snap Research, Seattle, WA, USA
  Led a mixed method study combining surveys and interviews to understand the landscape of collocated interactions. Identified product development opportunities and outlined design guidelines for Snap for augmenting in-person activities.
- **May 2019 – Aug 2019** Research Intern, Microsoft Research, Redmond, WA, USA
  Designed and conducted qualitative field research to study the experiences, perceptions, and implicit knowledge people have with the air and air pollution. Proposed actionable design strategies of augmenting environmental measurements to encourage behavior change.
- **Aug 2016 – Dec 2018** Graduate Research Assistant, SICE, Indiana University, Bloomington IN, USA
  Designed and led ethnographic fieldwork (observations, interview, design probes, and digital ethnography) on experimental farming and bottom-up innovation in rural Taiwan and American Midwest. Proposed strategies to design for multispecies collaboration and cohabitation.
- **Mar 2015 – May 2016** User Experience Researcher / Designer, ASUS, Taipei, Taiwan
  Led user studies and cross-functional co-design workshops to identify the user, technology, and business trends that directly influenced ASUS’s 3-10 years roadmap. Collaborated closely with project managers, marketers, designers, and engineers to deliver better user experiences.
Mar 2014 – Mar 2015  **Product Designer, ASUS, 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  **Graduate Research Assistant, College of Design, 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  **Research Assistant, College of Design, YunTech, 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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**PUBLICATIONS**

**Referred Conference Publications**


**Referred Conference Abstracts and Extended Abstracts**


**Book Chapters (Editor-Reviewed)**


**TEACHING EXPERIENCE**

**Research Group Mentorship**

2018 - 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)
2018  Wei Zheng (Undergraduate Research Opportunities in Computing)

**Assistant Instructor**

2018 - 2019  SICE, Indiana University, Bloomington IN, USA
I694: Thesis in Human-Computer Interaction (Spring 2018, Spring 2019)
IS44: 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)

**AWARDS**

**Research Funding**

2017 - 2019  Ministry of Education, Taiwan
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. $1500
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  Sponsor Award, Taipei Industrial Design Award, “Under The Tree: bus stop redesign”
2009  Honorable Mention, Universal Design Award, “Wave: universal cutting board”

**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. SI10 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
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**

2020  ACM CHI Late Breaking Works (LBWs) Associate Chair: Honolulu HI, USA
2019  ACM DIS Pictorial 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