

Pei-Yao Hung

USER EXPERIENCE RESEARCHER · PROTOTYPER

4443 North Quadrangle, 105 South State Street, Ann Arbor, MI 48109

☎ +1 (734) 926-5082 | ✉ peiyaoh@umich.edu | 🏠 peiyaoh.github.io

Summary

- Experience (post-undergrad): 13+ years programming, 10+ years UX research, and 2 UX student teams mentored.
- Methods: Contextual Inquiry, Usability Testing, Semi-structured Interview, Co-Design, Participatory Design, Field Observation, Card Sorting, Survey, Affinity Wall, Application Log Analysis, Comparative Analysis, Heuristics Evaluation
- Skills: JavaScript, React, NodeJS, Python, R, PHP, SQL, NoSQL (MongoDB), HTML, CSS, Qualtrics, Figma

Selected Work Experience

UX Researcher & Software Developer

US

School of Information, University of Michigan

Jan. 2015 - Present

- Conduct **contextual inquiry** and **co-design** activities with patients with a neurological impairment, caregivers, and clinicians, applied **thematic analysis** to devise design requirements for sensor-based technological support.
- Conduct remote **interview** with **card-sorting** activities using Miro to understand people's sharing preferences over data captured at home to develop a Human-AI collaborative approach of data sharing for care (N=30).
- Develop a board game inspired **web application** for specifying data sharing policies, evaluated it through scenario-based **usability testing** (N=15) with patients and caregivers to demonstrate its advantage of supporting use cases required for team-based home care and investigated its flexibility for supporting long-term care.

UX Researcher & Software Developer

US

School of Public Health, University of Michigan

Jul. 2017 - Present

- Oversee a **participatory design** study (N=17) and assist with a **focus group** study (N=21) with African-Americans and Latinx to identify important design dimensions to improve the inclusivity of a lung cancer screening decision aid.
- Collaborate with public health researchers and physicians to develop a multilingual **online decision aid**, ShouldIScreen.com (7.9K weekly visitors worldwide), for patients to explore critical cancer screening decisions.
- Train and organize volunteers to provide Traditional Chinese translation through **Git**, apply **A/B testing** for design refinement, and mentor undergrad human-centered research to realize user-friendly features.

Product Manager & Software Developer

US

College of Engineering, University of Michigan

May 2021 - Present

- Lead a team to develop an **online knowledge-sharing platform** using **agile** methodology to connect Black, Indigenous, and People of Color (BIPOC) entrepreneurs in the field of Public Interest Technology
- Facilitate domain name brainstorming and apply cloud computing credits grant to support branding & deployment.

Software Development Lead

US

The Wearables In Reducing Risk and Enhancing Daily Lifestyle Center (WIREDL), University of Michigan

May 2021 - Present

- Collaborate with CareEvolution, Inc and utilize its framework to design a **mobile app** with dashboards and just-in-time intervention for a clinical trial funded by a \$2.5 million grant from the American Heart Association.
- Apply **agile** project management using Airtable to collaborate with designers, a developer, and a Q&A engineer.

Education

2012, 2022 **MS & PhD in Information Science (Human-Computer Interaction)**, University of Michigan, Ann Arbor

US

2006, 2008 **BS & MS in Computer Science and Information Engineering**, National Taiwan University

Taiwan

Recent Publications

Data Checkers: A Grid-Based UI for Managing Patient-Generated Data Sharing to Support Collaborative Self-Care

Frontiers

Hung, Pei-Yao, Drew Canada, Michelle A. Meade, and Mark S. Ackerman

2022

Helping People to Control Their Everyday Data for Care: A Scenario-Based Study

PervasiveHealth

Hung, Pei-Yao, Mark S. Ackerman

2021

Selected Presentations

Mainstreaming the embodied knowledge and lived experiences of BIPOC PIT Practitioners

US

Public Interest Technology Knowledge Network Kick-Off

11/18/2021

[Demonstration] Sensible Care: using Internet of Things (IoT) data to support collaborative care with sensing and mobile technology

US

State of Science conference - Facilitating Health Self-Management and Independence among Adolescents and Young Adults with Disabilities

10/19/2017

Selected Mentorship & Teaching Experience

University of Michigan, Ann Arbor

US

Graduate Student Instructor – User Interface Development

2020

- Ensure the smooth operation of a remote Computer Science course with 360+ students across different time zones.
- Design homework for students to apply User Interface Development concepts using **HTML/CSS/Javascript**.

University of Michigan, Ann Arbor

US

Graduate Student Instructor – Advanced User Research in the Field

2020

- Give a guest lecture to examine a case study of applying **participatory design**.
- Provide feedback on students' **UX research** plans (e.g., interview, survey) to sharpen their research planning skills.

University of Michigan, Ann Arbor

US

Graduate Student Instructor – Programming I (Python)

2019

- Led weekly lab sessions (40+ master students) and office hours to examine important **Python** programming concepts.
- Participated in a panel on problem-solving to share and discuss good **programming practices**.

University of Michigan, Ann Arbor

US

Team Mentor – A team with 5 master students

2015 - 2016

- Guided the **user-centered design** process to propose a wearable application for pregnant woman.
- Provided **critique**, and polished **writing** and **presentation** flow that supports the team to be selected as the **student design competition finalists** at the premier **international conference of Human-Computer Interaction (CHI)**.

Honors & Awards

2015, 2019 **Awarded**, Travel Grant, Rackham Graduate School, University of Michigan

US

2015, 2018-19 **Awarded**, Travel Grant, School of Information, University of Michigan

US

2013 **Awarded**, Research Grant, Rackham Graduate School, University of Michigan

US

2010 **Runner-Up**, Mobile Apps Challenge, University of Michigan

US

2010 **Finalist**, iDesign Competition, University of Michigan Library

US