Pei-Yao Hung

User Experience Researcher · Prototyper

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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, Node.js, 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 demonstrated 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 (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.

Tech Lead & Product Management
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 QA 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*