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, NodeJS, Python, R, PHP, SQL, NoSQL (MongoDB), HTML, CSS, Qualtrics, Figma

Selected Work Experience

HCI 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=25).

- 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 (2.6K weekly visitors worldwide), for patients to explore critical cancer screening decisions.

- Train and organize volunteers to provide Traditional Chinese translation through **Git** and mentor undergrad human-centered research to realize user-friendly features.

UX Researcher & Data Scientist

US

School of Information, University of Michigan

2013 - 2014

- **Interviewed** 26 programmers to understand how expertise affected their information-seeking behaviors.

- Performed **machine classification** of browsing history (using scikit-learn) and **expertise prediction** through regression (using R) to support knowledge-based community interactions (e.g., Q&A).

Education

University of Michigan, Ann Arbor

US

2010 - 2021

MS & PhD in Information Science, with focus on Human-Computer Interaction

(anticipated)

National Taiwan University

Taiwan

BS & MS in Computer Science and Information Engineering

2002 - 2008

Recent Publications

Designing a Web-based Decision Aid for Individuals to Consider Lung Cancer Screening   *PervasiveHealth*

Hung, Pei-Yao, Yan Kwan Lau, Mark S. Ackerman, Rafael Meza   *2019*

Supporting Collaboratively Constructed Independence: A Study of Spinal Cord Injury   *CSCW*

Büyüktür, Ayse G., **Pei-Yao Hung**, Mark S. Ackerman, Mark W. Newman   *2018*

Selected Presentations

[Poster] Empowering Patients to Share Patient-Generated Data through a Grid-Based UI   *US*

Privacy@Michigan - Celebrating International Data Privacy Day   *01/30/2019*

[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*

[Seminar] Discount Expertise Metrics for Augmenting Community Interaction   *Taiwan*

National Tsing Hua University Institute of Information Systems and Applications Seminar   *07/16/2016*

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	*US*
2010	**Runner-Up**, Mobile Apps Challenge, University of Michigan	*US*
2010	**Finalist**, iDesign Competition, University of Michigan Library	*US*