

Four years of experience conducting qualitative human-computer interaction research with under-represented populations. Experience conducting research independently and as part of a cross-functional team in online privacy, usability and accessibility.

PROFESSIONAL EXPERIENCE

UX Researcher

August 2021 – May 2022

Student Disability Services, UMBC

Maryland, USA

- Lead qualitative research initiatives for the redesign of the University's Student Disability Services website.
- Uncovered usability problems related to content placement, accessibility of menus and error prevention.
- Improved task completion time by 33% through insights gained from users' mental models in usability testing, task analysis and A/B testing.
- Improved Success Score from 0.6 to 0.9 by implementing mixed methods of post-surveys and contextual inquiries.

Research and Teaching Assistant

August 2018- May 2021

UMBC and Office of Naval Research

Maryland, USA

- Worked on four research projects with participants from diverse populations – older adults, teenagers, and individuals with disabilities.
- Involved in study design, data collection, analysis, and preparation of results for publication. Main author of 4 peer-reviewed publications.
- Supervised three graduate and two undergraduate students.
- Examined several questions including usability/privacy tradeoffs, and the role of age in usability concerns and technology adoption.

User Experience Intern (UI/UX)

June 2017- August 2017

National Bank of Oman

Muscat, Sultanate of Oman

- Created decision trees using RStudio to analyze customers' financial decisions and trends based on demographics and account data.
- Predicted probability of VIP customer subscriptions and determined key correlation factors.

EDUCATION

Doctor of Philosophy (PhD) - Human-Centered Computing

August 2018 - August 2022

University of Maryland, Baltimore County

GPA: 4.0

Master of Science (MS) - Human-Centered Computing

August 2018 - May 2021

University of Maryland, Baltimore County

Master of Science (MS) - Computer Science

August 2016 - May 2018

Clemson University

Bachelor of Technology (B.Tech) - Computer Science and Engineering

August 2012 - May 2016

Vellore Institute of Technology

PUBLICATIONS

1. Ray, H., Kuber, R. & Aviv, A. J. *Investigating Older Adults' Adoption and Usage of Online Conferencing Tools During COVID-19 in 19th Web for All Conference (W4A 2022)* (2022).
2. Ray, H. et al. *Why older adults (Don't) use password managers in 30th USENIX Security Symposium (USENIX Security 21)* (2021), 73–90.
3. Ray, H. et al. "Warn Them" or "Just Block Them"?: Investigating Privacy Concerns Among Older and Working Age Adults. *Proceedings on Privacy Enhancing Technologies* **2021**, 27–47 (2021).
4. Ray, H. et al. "Woe is me" Examining Older Adults' Perceptions of Privacy in *Extended Abstracts of the 2019 CHI Conference on Human Factors in Computing Systems (CHI 2019)* (2019), 1–6.

SKILLS

Methodologies

Contextual Inquiry, User Interviews, Drawmetrics, Qualitative Coding, Usability Testing, Participatory Design, Heuristic Evaluation, Affinity Mapping, A/B Testing, Diary Studies, Card Sorting, Storyboards, Surveys, Personas, Focus Groups, Statistical Analysis, Task Analysis

UX Design

Wireframing, Prototyping, Whiteboarding, Interaction Design, Accessibility, User Centered Design

Tools

Dragon, Unity Game Engine, Adobe XD, Figma, Survey Monkey, Qualtrics, RStudio, Photoshop

Programming

HTML, CSS, SQL, C#, C++

Soft Skills

Mentoring, Teaching, Leadership, Design Thinking, Empathy, Communication, Collaboration

AWARDS & HONORS

- 2021** CHI 2021, INTERACT 2021, iConference Doctoral Colloquium, HCC Student Research Colloquium - Reviewer, Speaker
2018 Interactive Systems Research Center (ISRC), Privacy and Usable Security HCC group (PUSH) - Member