Mindy Hoover, PhD

USER EXPERIENCE RESEARCHER • XR SPECIALIST

EXPERIENCE

Teleportation | ISU + NSF | Lead Researcher 🔗

MAY 2020 - DEC 2021

Designed and implemented two online experiments to research spatial navigation in virtual reality. Analyzed large quantitative data sets using linear regression in R Studio.

Accelerated data collection by integrating adaptive feedback into a virtual reality application to facilitate unsupervised, online data collection.

SCOTTIE | ISU + Raytheon | Researcher 🔗

MAY 2021 - AUGUST 2021

Managed a team of 8 research assistants to gather longitudinal data on collaboration in virtual reality from over 100 participants.

Developed protocols to streamline study procedures and data collection over Zoom and reported results to customer stakeholders.

Factory of the Future | ISU + Boeing | Lead Researcher

MAY 2015 - MAY 2018

Identified gaps in the existing literature to create a multi-study research plan in partnership with the customers at Boeing.

Tested usability, speed, and accuracy of augmented reality interfaces for factory assembly applications. Conducted comparative user testing of augmented reality hardware for displaying aircraft assembly instructions.

Google | UX Research Intern

MAY 2018 - AUG 2018

Designed and facilitated an 8-day diary study (n=50) to capture user perceptions of good ads using DScout. Coded and analyzed themes in the resulting qualitative and quantitative data.

Conducted in-person user studies on new ad formats to evaluate usability and satisfaction. Translated results into actionable recommendations for engineers, project managers, and stakeholders.

Applied card sorting and participatory design methods to shape information architecture of online ad formats.

CONTACT

💻 melyndahoover@gmail.com

linkedin.com/in/melyndahoover

🔗 www.melyndahoover.com

EDUCATION

Doctor of Philosophy
Human Computer Interaction

IOWA STATE UNIVERSITY • DEC. 2021

Dissertation Title: Adaptive XR Training Systems Design, Implementation, and Evaluation

GPA: 3.97/4.00

Master of Science
Human Computer Interaction + Mechanical Engineering

IOWA STATE UNIVERSITY • MAY 2018

Minor: Industrial Engineering

Thesis Title: An Evaluation of the Microsoft HoloLens for a Manufacturing Guided-Assembly Task 🔗

GPA: 3.96/4.00

Bachelor of Science
Mechanical Engineering

IOWA STATE UNIVERSITY • MAY 2016

Minor: French

GPA: 3.86/4.00

Boeing | Human Factors Intern

MAY 2016 - AUG 2016

Designed an experiment to evaluate the ergonomic stability of pilots using new 777X touch screen displays during turbulence.

Interviewed and surveyed commercial and military pilots to identify opportunities for new aircraft navigation features.

PROFESSIONAL DEVELOPMENT

I/ITSEC Conference | Subcommittee Member 🔗

JAN. 2019 - PRESENT

Reviewed and selected papers for conference publication in the Policy, Standards, Management & Acquisitions subcommittee.

Created schedule of 2021 conference events for the PSMA subcommittee.

CHI Conference | Workshop Co-Organizer 🔗

DEC. 2020 - MAY 2021

Planned events and facilitated discussion at the first Computer-Human Interaction Conference Workshop on Remote XR research.

Reviewed workshop paper submissions from industry experts.

HCI Student Group | Vice President + Event Organizer 🔗

SEP. 2017 - MAR. 2021

Organized annual ISU Usabilathon to teach UX problem-solving skills to students and help them network with industry professionals.

ISU Graduate Student Senate | HCI Senator

SEP. 2016 - MAY 2017

Voiced concerns of HCI graduate students to a forum of student governors and voted on university legislation.

RECENT PUBLICATIONS 🔗

Remote Research on Locomotion Interfaces in VR: Replication of a Lab-Based Study on Teleporting Interfaces
IEEE VR • 2022

Remote XR Studies: Exploring Three Key Challenges of Remote XR Experimentation
ACM CHI • 2021

Measuring the Performance Impact of Using the Microsoft HoloLens 1 to Provide Guided Assembly Work Instructions
ASME JCISE • 2020

Overcoming limitations of the HoloLens for use in product assembly
IS&T ELECTRONIC IMAGING • 2019

SKILLS

Research Methods
Usability Testing
Interviews
Surveys
A/B Testing
Card Sorting
Diary Studies
Participatory Design
Cognitive Walk-Through

Analysis Methods
Regression Analysis
Correlations
Affinity Diagrams
Qualitative Coding
Theme Analysis
Personas
Task Analysis
Journey Maps
Heuristic Analysis
Competitive Analysis

Tools

R Studio	SPSS
Excel	Sheets
SQL	Python
Qualtrics	dScout
M Turk	Prolific
Unity 3D	C++
Axure RP	HTML
MatLab	SolidWorks

AWARDS

3DUI Contest Runner-Up 🔗
IEEE VR • 2019

Presidential Fellow
IOWA STATE UNIVERSITY • 2018

Leonard Gollobin Scholar 🔗
I/ITSEC • 2018

UX Design Contest 2nd Place 🔗
ISU USABILATHON • 2018

Magna Cum Laude Graduate
IOWA STATE UNIVERSITY • 2016