

# Janet G. Johnson

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## SELECT EXPERIENCE

### Human-centered eXtended Intelligence Lab & The Design Lab, UC San Diego

PhD Candidate | Apr. 2017 - Present

Dissertation Focus: eXtended & Mixed Reality Mediated Collaboration

- Developing a communication and cognition-first framework and model for designing XR-mediated remote guidance systems.
- Led research efforts towards interaction techniques that leverage XR's spatial affordances to support user needs for remote guidance.
- Designed and evaluated an XR telementoring environment for trauma surgery (collaboration with the Naval Medical Center at San Diego).
- Designed and evaluated a Mixed Reality application that provides real-time resuscitation (CPR) aid for novices.
- Led longitudinal research to understand latent needs and develop a framework for family-centered interventions in the ICU.

### XR Safety Initiative

Advisor and Medical XR Research Co-Chair | June. 2021 - Present

- Leading research efforts towards creating a framework that enables creators to design and build safe and ethical XR applications in healthcare.
- Led research efforts to understand global design and development practices for XR applications in healthcare.

### Facebook Reality Labs, Facebook Inc

UX Research Intern | Jun. 2020 - Sept. 2020

- Conducted exploratory and generative research to inform future AR product strategy with a focus on spatial capabilities for AR glasses.

### Facebook AR/VR, Facebook UK Ltd

UX Research Intern | Jun. 2019 - Sept. 2019

- Conducted qualitative UX research on AR authoring and the Spark AR ecosystem to inform future product and research directions.

### PricewaterhouseCoopers & UC San Diego

UX Research & Design Intern | Jun. 2017 - Sept. 2017

- Responsible for the UX research and design of a collaborative Mixed Reality application to visualize and interact with multi-dimensional data.

### Microsoft India (R&D) Pvt. Ltd.

Software Engineer | Jul. 2014 - Jul. 2016

- Designed an interface for an e-commerce site for Microsoft partners, created a network analysis tool, and helped manage data-center projects.

### Juniper Networks India Pvt. Ltd.

Engineering Intern | Jan. 2014 - Jun. 2014

- Designed a framework to enhance the debugging capabilities of the EX-Series Platform Forwarding Engine and reduced the time to obtain debugging information from approx. 30 minutes to 12.7 seconds.

## SELECT ASSOCIATIONS AND SERVICE

- Track Chair - Medical XR, Metaverse Safety Week 2022
- Organizer - Workshop on Empathic Computing at IEEE VR 2022
- Web Co Chair - ACM UbiComp & ISWC 2020
- Academic Peer Reviewer - Multiple HCI Journals and Conferences
- Member - Diversity, Equity, and Inclusion Committee, CSE, UC San Diego
- Member - Graduate Women in Computing, UC San Diego
- Volunteer - California Wolf Center

## EDUCATION

### PhD in Computer Science / HCI

UC SAN DIEGO, USA

Sept. 2016 - Present | GPA: 3.82/4

MS-PhD Transfer in 2018

### B.E. in Computer Science and Engineering

MANIPAL UNIVERSITY, INDIA

Jul. 2010 - Jun. 2014 | GPA: 8.79/10

## SELECT PUBLICATIONS

*Johnson, Sharkey, Butarbutar, Xiong, Huang, Sy, Weibel. UnMapped: Leveraging Experts' Situated Experiences to Ease Remote Guidance in Collaborative Mixed Reality, CHI 2023*

*Johnson, Gasques, Sharkey, Schmitz, Weibel. Do You Really Need to Know Where "That" Is? Enhancing Support for Referencing in Collaborative Mixed Reality Environments, CHI 2021*

*Gasques, Johnson, Sharkey, Feng, Wang, Xu, Zavala, Zhang, Xie, Zhang, Davis, Yip, Weibel. ARTEMIS: A Collaborative Mixed-Reality System for Immersive Surgical Telementoring, CHI 2021.*

*Johnson, Schmitz, Ramnath, Weibel. NES: A Human-Centered Approach to Understand and Support ICU Families, PervasiveHealth 2019*

*Johnson, Gasques, Gubbala, Weibel. HoloCPR: Designing and Evaluating a Mixed Reality Interface for Time-Critical Emergencies, PervasiveHealth 2018.*

## TEACHING

**UC San Diego (TA):** Towards Human-Centered AI, HCI for Health, Ubiquitous Computing, Advanced Interaction Design

**Coursera (Staff):** Interaction Design

## KEY RESEARCH & ANALYSIS METHODS

**Methods:** Semi-Structured Interviews, Design Ethnography, Participatory Design, Cognitive Walkthroughs, Technology & Cultural Probes, Diary Studies, Workshops, Lab & Field Experiment Design

**Analysis:** Grounded Theory, Thematic Analysis, Discourse & Conversation Analysis, Movement Analysis, Hypothesis Testing, Statistical Analysis