Akeiylah DeWitt

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Research Interests

- mHealth (mobile health) and SMS-based Health Interventions
- Early Childhood Health Promotion
- Human Computer Interaction
- Community Based Participatory Research/Participatory Design
- Geospatial Data for Health Interventions

Education

Ph.D. Human Centered Design and Engineering, University of Washington 2019 - Now

B.S. Cognitive Science, University of California Merced 2016 - 2019

Research Experience

Research Assistant – *Supporting Families at Home with Technology during COVID-19* 2020 - Now

University of Washington Department of HCDE; PIs: Julie Kientz, Ph.D., Sean Munson, Ph.D., Jason Yip, Ph.D., Alexis Hiniker, Ph.D.

- Conducted parent interviews to understand in-home technology experiences after the onset of shelter-in-place guidelines
- Analyzed qualitative data to illuminate opportunities to support families through their technology experiences
- Distilled research findings for a major research publication venue

Research Lead – *Analysis of Trends in Developmental Milestone Screening Apps* 2019 - Now

University of Washington Department of HCDE

- Conducted a systematic literature review of the last 10 years of peer-reviewed literature involving developmental milestone screening apps for parents
- Led a directed research group of three undergraduate students
- Publication in-progress

Research Assistant – *Analysis of Trends in Interaction Design and Children Literature* 2019 - 2020

University of Washington Department of HCDE, PI: Saba Kawas

- Systematically parsed literature for relevant concepts in a pre-defined coding scheme
- Analyzed codes for relevant emergent themes
- Wrote sections of the publication

Research Assistant – *Threat and Decision Making with Machine Agents* 2018 - 2019

UC Merced Department of Cognitive Science, PI: Colin Holbrook, Ph.D.

- Developed methodological foundation for human-robot interaction experiments involving perceptions of threat and reliance on machine agents in ambiguous situations
- Iterated research protocols to avoid bias in study design
- Ran and oversaw experiments with human participants
- Trained novice researchers on human subject research protocols

Research Assistant – *Onboarding Redesign for a Citizen Science Game: Eterna* 2018 - 2019

UC Merced Department of Cognitive Science, PI: Jeff Yoshimi, Ph.D.

- Created research protocol to evaluate gamer performance following an integration of a game strategy guide into on-boarding levels of a popular citizen science game
- Analyzed user data through multivariate analysis
- Formed design frameworks and considerations for multimedia learning tools

Research Assistant – *Embodied Actions with Three Evaluation Tools for Children* 2018 - 2019

UC Merced Department of Cognitive Science, PI: Jeff Yoshimi, Ph.D.

- Redesigned traditional psychometric scales to incorporate child-interaction research approaches
- Parsed recorded user interviews for recurring child behaviors using pre-defined coding schemes
- Translated research findings into accessible formats for designers

Lead User Experience Researcher 2018 - 2019

UC Merced Department of Sustainability and UC Merced School of Engineering

- Conducted semi-structured interviews with students, faculty and campus visitors to address user needs and associations with campus sustainability initiatives
- Led co-design sessions with target users and designers
- Designed and evaluated mobile and web app prototypes (Axure RP)
- Leveraged insights to develop and deliver app for campus-wide use
- Addressed integrations of GIS applications to customizable data visualizations for end users.

Research Assistant – *Multimodal Coordination of Sound and Movement in Music and Speech* 2017 - 2019

UC Merced Department of Cognitive Science, PI: Chris Kello, Ph.D.

- Utilized quantitative research methods to parse out structures among sound and video signals (MATLAB, R)
- Quantified observed human behaviors from an embodied perspective

Research Assistant - *Cognition and Integrated Action Lab* 2016 - 2017

UC Merced Department of Cognitive Science

- Reviewed and modified video footage from live talk series
- Encoded action and speech data following pre-determined parameters using R studio and lab-developed analysis techniques
- Brainstormed methods to improve data collection and experimental consistency

Peer-Reviewed Publications

Akeiylah DeWitt, McKenna Trogdon, Tumaini Coker, Julie Kientz, Kendra Liljenquist. 2020. Parent-Use Technologies to Support Early Childhood Health Promotion: A Systematic Review.

Saba Kawas, Ye Yuan, Akeiylah DeWitt, Qiao Jin, Susanne Kirchner, Abigail Bilger, Ethan O. Grantham, Julie A. Kientz, Andrea Tartaro, Svetlana Yarosh. 2020. Another Decade of IDC Research: Examining and Reflecting on Values and Ethics. *In Proceedings of the International Conference on Interaction Design and Children*. https://dl.acm.org/doi/pdf/10.1145/3392063.3394436

Camila Alviar, Rick Dale, Akeiylah DeWitt, Christopher T. Kello. 2019. Multimodal Coordination of Sound and Movement in Speech. *Discourse Processes.* https://doi.org/10.1080/0163853X.2020.1768500

Cristina Maria Sylla, Elena Márquez Segura, Akeiylah DeWitt, Ahmed Sabbir Arif, Eva Irene Brooks. 2019. Fiddling, Pointing, Hovering and Sliding: Embodied Actions with Three Evaluation Tools for Children. *Proceedings of the 2019 CHI PLAY Conference – CHI PLAY '19.* https://doi.org/10.1145/3311350.334717

Poster Presentations

California Cognitive Science Conference. Berkeley, California. Presented Paper: Hierarchical Temporal Structure in the Sounds and Visible Movements of Speech and Music.

Competencies

Research Methods

- Structured/semi-structured interviews
- Quantitative and qualitative data analysis
- Eye tracking (wearable)
- Multivariate analysis
- Systematic literature review

Programs

- Axure RP
- Qualtrics
- Amazon Mechanical Turk

Languages

- Python
- R
- Java