Saba Kawas, Ph.D.

HCI Researcher | Computing Innovation Fellow

⊙ Seattle, WA | Los Angeles, CA ⑧ <u>Google Scholar</u> ⊕ <u>sabakawas.com</u> ▯ +1 206-939-9962 ▽ <u>skawas@uw.edu</u>

EDUCATION

2022 Ph.D. | Human-Computer Interaction | **University of Washington** | Innovation Award Fellow
      Dissertation: Supporting Developmentally Responsive Design in Children's Technology
2016 MS. | Human-Centered Design and Engineering | **University of Washington**
2009 MA. | Media Arts, Design and Technology | **North Carolina State University**
2005 B.S. | Urban & Architectural Engineering | **University of Jordan**

RESEARCH EXPERIENCE

2022–2024 Postdoctoral Researcher & Computing Innovation Fellow, **Department of Computer Science and Engineering, University of Minnesota**
Mentor: Svetlana Yarosh

- Designed and executed research studies roadmap [led stakeholder co-design workshops and diary studies] to scope app content and feature designs, resulting in the beta rollout of young adults Learning to Breathe Mindfulness evidence-based Mobile App.
- Researched mental health tech-based intervention [led systematic literature review, deployment study, and interviews with young adults] and investigated emerging wearable technologies to support young adults' mental health and emotional regulation skills.
- Co-led research [structured interviews, field studies, and survey studies with 60+ youth and families] to investigate ethical AR/VR designs for young adults and drafted first-ever youth-centric ethical AR/VR guidelines.

2016—2021 Graduate HCI Researcher, **Information School, University of Washington**
Mentors: Katie Davis, Julie Kientz, Amy Ko

- Collaborated on six research studies that resulted in 12+ peer-reviewed publications in top-tier conferences and journals with less than a 25% acceptance rate, including best and honorable mention papers.
- Led and managed $400,000 project milestones to design, deploy, and evaluate *NatureCollections* —a mobile app to connect children to nature. Designed and executed multiple research studies to evaluate different dimensions of the NC App [led IRB, design workshops with KidsTeam, focus groups with parents, interviews, experimental and field studies, RITE usability, and field deployment experiments]. The NC App significantly increased children's interest in and connection to nature.
- Led design participatory workshops with UX practitioners working on children's technologies and applications to develop and evaluate research-based designer toolkits for children's technology. The project was partially funded by the Jacobs Foundation to develop a technical prototype.
- Co-led design participatory workshops and conducted diary studies with young adults to scope a mobile app feature and content that significantly reduced their habitual use of social media (e.g., Instagram, TikTok, Snapchat) while boosting intentional app interactions.
- Collaborated with AccessComputing researchers to research & design tools to teach accessibility at scale and define code-triaging best practices for debugging accessibility issues.

2014—2016 Graduate Research Assistant, **College of Engineering**, **University of Washington**
Mentors: Julie Kientz, Katie Davis, Shwetak Patel

- Collaborated with researchers to understand practices, challenges, and future opportunities to support equity and inclusion for connected learning in youth library programming. Co-led interviews and focus groups with 90+ librarians that serve primarily underserved youth populations, including rural, immigrant, and low-income youth. The research informed the design of the ConnectedLib toolkit and module content.
- Designed and executed UX research (contextual inquiry, usability studies) to scope the UI features of the *SpiroSmart health app's* onboarding training.
- Collaborated with Seattle Children's Research Institute on survey, interview, and usability studies with providers, caregivers, and their teens to shape the content and features of personalized health habits for teens in an evidence-based screener. Led the design of the healthcare provider's data report to integrate with the EPIC system. The app is used across health clinics.
- Collaborated on UX research studies (contextual inquiry, survey, usability studies) to design, implement, and evaluate *Tipper*, a browser-based system to provide contextual help for seniors on the Web.

2016 UX Research Scientist Intern, **Microsoft Research**
Mentors: Will Lewis, Richard Ladner

- Designed and executed UX research roadmap for automatic speech recognition application features for deaf and hard of hearing (DHH) students (led systematic literature review, design workshops with stakeholders, interviews, diary studies, observational studies, and usability testing), resulting in Microsoft Translator for education app with millions of monthly users.
- Delivered design recommendations that reduced real-time captioning domain-specific Word Error Rate by 1% and resulted in implementing captioning and transcription features across Microsoft SaaS products, notably PowerPoint Edge browser and OneNote.

TEACHING

Human-Centered Design and Engineering, **University of Washington**
2024 **Instructor:** An Introduction to User Research (HCDE 313)

Information School, **University of Washington**
2022 **Instructor:** Design Methods (IMT 540)

2021 **Co-Instructor:** Project Capstone (490)
Co-Instructor: Project Capstone (491)
Co-Instructor: Design Methods (INFO 360)

2020 **Teaching Assistant:** Research Methods (INFO 300)
Teaching Assistant: Design Methods (INFO 360)

2018-2020 **Instructor**: Directed Research Seminar (INFX 571)

Computer Science & Engineering, **University of Washington**
2016 **Teaching Assistant:** Introduction to HCI (CSE 440)
2015 **Teaching Assistant:** Introduction to HCI (CSE 440)

College of Arts and Design, **University of Jordan**
2009-2014 **Lecturer** Courses: Design Fundamentals; Design Thinking; Media Technology; Motion Graphics; Graphic Design &Typography; Digital Illustration, and Imaging

2011–2013 **Lead Curriculum Developer:** Design programs curriculum and instructional materials development

School of Architecture and Built Environment, **German Jordanian University**
2011-2012 **Visiting Lecturer**, Courses: Design Thinking; Graphic Design &Typography

Research Seminars, **University of Minnesota**

2023-2024	**Instructor:** Ethical consideration for AR/VR designs for children
2022-2023	**Instructor:** Co-designing Mindfulness supplementary tech-based interventions with teens

Directed Research Groups, **University of Washington**

2020-2021	**PI:** Children's Digital Media and Technologies Design Toolkit
2018-2019	**PI:** Value and Ethics in Child-Computer Interaction-Systematic Lit Review
2017-2018	**PI:** Kids' mobile app for Nature Exploration

HONORS AND AWARDS

2024	**Best Paper Nomination**, ACM Conference on International Design and Children Conference (IDC)
2022-24	**Computing Innovations Fellow**, National Science Foundation & Computing Research Association
2023	Computing Research Association CRA-WP, Academic Career Workshop for BIPOC and Women
2021	Social Learning Researcher, Society for Research in Child Development (SRCD)
2020	**Best Paper**, International Conference on Computer Supported Education (CSEDU)
2016-2021	**Graduate Research Fellow**, University of Washington Innovation Award
2016	**Honorable Mention paper**, ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW).

GRANTS

2022	Computing Innovations Fellowship, National Science Foundation & Computing Research Association ($345,726)
2021	The Jacobs Foundation, Translating Research Findings from Child-Computing Interaction to the Design of Interactive Technologies. ($21,000)
2019	The Population Health Innovation Award, University of Washington, "NatureCollections: Can a Mobile App Connect Kids with Nature? ($50,000)

PUBLICATIONS

In computing, conference papers undergo a highly selective, multi-stage peer review process and are considered on par with journal publications. Acceptance rates range from 20% to 28% for CHI, IDC, ASSETS, CSCW, and SIGCSE. † denotes mentored students.

2024	Qiao Jin†, **Saba Kawas**, Ye Yuan, Stuti Arora†, Svetlana Yarosh, 2024. Is Your Family Ready for VR? Ethical Concerns and Considerations in Children's VR Usage. Proceedings of the 23rd ACM conference on interaction design and children. (to appear IDC '24). *Nominated Best Paper (Top 2%)*
2023	Katie Davis, Petr Slovak, Rotem Landesman, Caroline Pitt, Abdullatif Ghajar, Jessica Lee Schleider, **Saba Kawas**, Andrea Guadalupe Perez Portillo, and Nicole S. Kuhn†. 2023. Supporting Teens' Intentional Social Media Use Through Interaction Design: An exploratory proof-of-concept study. In Proceedings of the 22nd Annual ACM Interaction Design and Children Conference (IDC '23).
2021	**Saba Kawas**, Nicole S. Kuhn†, Kyle Sorstokke†, Emily Bascom†, Alexis Hiniker, and Katie Davis. 2021. When Screen Time Isn't Screen Time: Tensions and Needs Between Tweens and Their Parents During Nature-Based Exploration. In Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems (CHI '21).
	Saba Kawas, Andrea Tartaro, Julie A. Kientz, Alissa N. Antle, Lucas Franco Colusso, Emily Schlemmer, Meagan Rothschild, and Nikita Soni. 2021. Translational IDC: Bridging the IDC Research-Practice Gap. In Proceedings of the 20th Annual ACM Interaction Design and Children Conference (IDC '21).

2020 **Saba Kawas**, Nicole S. Kuhn†, Mina Tari†, Alexis Hiniker, Katie Davis, 2020. "Otter this World: Can a Mobile Application Promote Children's Connectedness to Nature?" Proceedings of the 19th ACM conference on interaction design and children (IDC '20).

Saba Kawas, Ye Yuan, Akeiylah DeWitt†, Qiao Jin, Susanne Kirchner†, Abigail Bilger, Ethan Grantham, Julie A Kientz, Andrea Tartaro, Iana Yarosh '20. "Another Decade of IDC Research: Examining and Reflecting on Values and Ethics" Proceedings of the 19th ACM conference on interaction design and children. (IDC '20).

XueYan (Sue) Chen†, Meghna Nayak†, Tiffany C Wong†, **Saba Kawas**, and Julie A Kientz. 2020. Interaction design & children toolkit. In Proceedings of the 2020 ACM Interaction Design and Children Conference: Extended Abstracts (IDC '20).

Saba Kawas, Jordan Sherry-Wagner, Nicole S. Kuhn†, Sarah K. Chase, Brittany Bentley†, Joshua J. Lawler, and Katie Davis, 2020. NatureCollections: Can A Mobile Application Trigger Children's Interest In Nature? In 12th International Conference on Computer Supported Education (CSEDU 2020). *Best Paper (Top 1%).*

2019 **Saba Kawas**, Laura Vonessen, and Amy J. Ko. 2019. Teaching Accessibility: A Design Exploration of Faculty Professional Development at Scale. In Proceedings of the 50th ACM Technical Symposium on Computer Science Education (SIGCSE '19).

Saba Kawas, Sarah Chase, Jason Yip, Joshua Lawler, and Katie Davis 2019. Sparking Interest: A Design Framework for Mobile Technologies to Promote Children's Interest in Nature. International Journal of Child-Computer Interaction (IJCCI, 2019).

2018 Kristen Shinohara, **Saba Kawas**, Amy J. Ko, and Richard E. Ladner. 2018. Who Teaches Accessibility? A Survey of U.S. Computing Faculty. In Proceedings of the 49th ACM Technical Symposium on Computer Science Education (SIGCSE '18).

2017 Mega Subramaniam, Ligaya B. Scaff, **Saba Kawas**, Kelly. M. Hoffman, Katie Davis "Using technology to support equity and inclusion in youth library programming: Current practices and future opportunities" In The Library Journal Quarterly, 2017.

Ligaya Scaff, Mega Subramaniam, Kelly M. Hoffman, **Saba Kawas**, & Katie Davis (2017, June). Promoting equity and access in public libraries' computer-supported youth programming. Poster session presented at the 12th International Conference on Computer-Supported Collaborative Learning (CSCL 2017).

2016 **Saba Kawas**, George Karalis, Tzu Wen, and Richard E. Ladner. 2016. Improving Real-Time Captioning Experiences for Deaf and Hard of Hearing Students. In Proceedings of the 18th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '16).

Daniela K. Rosner, **Saba Kawas**, Wenqi Li, Nicole Tilly, and Yi-Chen Sung. 2016. Out of Time, Out of Place: Reflections on Design Workshops as a Research Method. In Proceedings of the 19th ACM Conference on Computer-Supported Cooperative Work & Social Computing (CSCW '16). *Honorable Mention Top 5%*

2015 Yibo Dai, George Karalis, **Saba Kawas**, and Chris Olsen. 2015. Tipper: Contextual Tooltips that Provide Seniors with Clear, Reliable Help for Web Tasks. In Proceedings of the 33rd Annual ACM Conference Extended Abstracts on Human Factors in Computing Systems (CHI '15).

White Paper Reports, Posters, Workshop Papers

2017 **Saba Kawas**, Sarah Chase, Katie Davis, and Joshua Lawler "Co-Engagement with the Natural World through an Interactive Mobile Application" Interaction Design for Children, 2017 Workshop. Playing together: The importance of joint engagement in the design of technology for children (IDC 2017).

2016 Kelly M. Hoffman, Mega Subramaniam, **Saba Kawas**, Ligaya Scaff, & Katie Davis(2016). Connected libraries: Surveying the current landscape and charting a path to the future. College Park, MD; Seattle, WA: The ConnectedLib Project.

2009 **Saba Kawas** (2009, August). H-link 3D: hyper-learning interface and navigational toolkit in 3D virtual worlds experimental interface design for cobalt, a Croquet metaverse. (SIGGRAPH'09).

INVITED ACADEMIC TALKS

2023 **Group Lens, University of Minnesota:** Supporting Developmentally Responsive Design in Children's Technologies

2022 **National Science Foundation Undergraduate Research Symposium:** When Screen Time Isn't Screen Time

2021 **The Center for Scholars and Storytellers| University of California Irvine:** Interaction Design & Children Designer's Toolkit, Translating Research Findings from the Design of Interactive Technologies for Children.

2020 **DUB Shorts, Univerity of Washington:** Otter this World': Can a Mobile Application Promote Children's Connectedness to Nature?

2016 **Microsoft Research Talks:** Skrybe: Designing Features to Improve Real-Time Captioning for Deaf & Hard of Hearing Students.

MENTORED STUDENTS

2022–2023 Qiao Jin, PhD Student, University of Minnesota

2022-2023 Ahan Devgun, Undergraduate Student, University of Minnesota

Namith Rao, Undergraduate Student, University of Minnesota

Ruchitha Bogireddi, Undergraduate Student, University of Minnesota

Ann Beimers, Undergraduate Student, University of Minnesota

2020-2021 Emily Bascom, Undergraduate Student, University of Washington

Kyle Sorstokke, Undergraduate Student, University of Washington

2017-2021 Nicole S. Kuhn, PhD Student, University of Washington

2018-2020 XueYan (Sue) Chen, Masters Student, University of Washington
Meghna Nayak, Masters Student, University of Washington

Tiffany C Wong, Undergraduate Student, University of Washington

2018—2019 Akeiylah DeWitt, PhD Student, University of Washington

2017-2018 Mina Tari, PhD Student, University of Washington

Brittany Bentley, Masters Student, University of Washington

SELECT SERVICE

External Reviewer, Journal & Conference Proceedings

2024 International Journal of Child-Computer Interaction

2024 Human Factors in Computing Systems (CHI), Papers

2023 Interaction Design and Children (IDC), Papers

2023 Human Factors in Computing Systems (CHI), Papers

2022 Human Factors in Computing Systems (CHI), Papers

2022 Interaction Design and Children (IDC), Papers

2021 Interaction Design and Children (IDC), Workshops

2020 Designing Interactive Systems (DIS), Papers and Pictorials

2020 Interaction Design and Children (IDC), Papers

2019 Human Factors in Computing Systems (CHI), Papers

2018 Computers and Accessibility (ASSETS), Papers

2018 Interaction Design and Children (IDC), Short Papers

2017 Human Factors in Computing Systems (CHI), Papers and Notes

2017 Human Factors in Computing Systems (CHI), Late-Breaking Work

2016 Human Factors in Computing Systems (CHI), Works-in-progress