Woosuk Seo

Research Interests: Human-Computer Interaction, Health Informatics, Technology for Children

Employment

Yale University

New Haven, CT

Postdoctoral Associate

09/2025 - Present

Working with Dr. Melnick in the Department of Emergency Medicine.

Validating and applying EHR-based metrics to measure usability, adoption, and effectiveness.

NAVER AI Lab

Korea

HCI Research Intern 05/2024 – 08/2024

- Designed an LMM-driven chatbot prototype for pediatric communication.
- O Conducted interviews with experts in pediatric care, using the prototype.
- O Led the project and submitted a conference paper as the first author.

NAVER AI Lab

Korea

HCI Research Intern 05/2023 – 08/2023

- O Designed and developed an LLM-driven chatbot to encourage children to share their emotions.
- Conducted lab-based user study with 20 children.
- Led the project and submitted a conference paper as the first author.

University of Michigan

Ann Arbor, MI

Graduate Student Research Assistant

09/2018 - 08/2020

- Conducted field observation at a children's hospital and semi-structured interviews with pediatric cancer patients, their parents, and healthcare providers.
- Mentored research assistants on qualitative research methods.
- Led the project team as the first author of conference papers.

University of Washington

Seattle, WA

Research Assistant

09/2017 - 06/2018

- Worked with Prof. Jennifer Mankoff on a project that involved active and passive tracking of undergraduate students' mental and physical well-being for three months.
- Created study materials (e.g., IRB documents, recruitment flyers).
- Recruited participants and led the data collection process that involved monitoring sensor data and distributing weekly surveys.

Education

University of Michigan

Ann Arbor, MI

School of Information, Ph.D. in Information

09/2018 - 06/2025

Dissertation Title: "Designing an AI Chatbot to Support Child-Parent-Provider Communication in

Pediatric Cancer Care" Advisor: Dr.Sun Young Park

University of Washington

Seattle, WA

Information School, Bachelor of Science in Informatics

08/2011 - 06/2017

Teaching Experience

Graduate Student Instructor

Ann Arbor, MI 09/2020-04/2025

University of Michigan

- SI 612: Pervasive Interaction Design
- O SI 106: Programs, Information, and People
- SI 582: Introduction to Interaction Design
- SIADS 601: Qualitative Inquiry for Data Scientists
- SIADS 503: Data Science Ethics
- SI 622: Needs Assessment and Usability Evaluation
- SI 482: Interaction Design Studio

Publications

Journal Articles (Peer-Reviewed).....

[J.7] Woosuk Seo*, Jiaqi Li*, Zhan Zhang, Hardeep Singh, Kalyan Pasupathy, Prashant Mahajan, and Sun Young Park "Designing Health Care Provider—Centered Emergency Department Interventions: Participatory Design Study". JMIR Formative Research (2025) https://doi.org/10.2196/ 68891

- [J.6] <u>Woosuk Seo</u>, Shruti Jain, Vivian Le, Jiaqi Li, Zhan Zhang, Hardeep Singh, Kalyan Pasupathy, Prashant Mahajan, and Sun Young Park "Designing Patient-Centered Interventions for Emergency Care: Participatory Design Study with Patients". JMIR Formative Research (2025) https://doi.org/10.2196/63610
- [J.5] Joonyoung Jun, Woosuk Seo, Jihyeon Park, Soobin Park, and Hyunggu Jung "Exploring the Experiences of Streamers with VisualImpairments". ACM Conference on Computer Supported Cooperative Work and Social Computing (CSCW '21) https://doi.org/10.1145/3476038
- [J.4] Woosuk Seo, Ayse Büyüktür, Sung Won Choi, Laura Sedig, and Sun Young Park. "Challenges in the Parent-Child Communication of Health-related Information in Pediatric Cancer Care". ACM Conference on Computer Supported Cooperative Work and Social Computing (CSCW '21) https://doi.org/10.1145/3449184

^{*}These authors contributed equally

- [J.3] Woosuk Seo, Hyunggu Jung. "Understanding the Community of Blind or Visually Impaired Vloggers on YouTube". Universal Access in Information Society (2020). https://doi.org/10. 1007/s10209-019-00706-6
- [J.2] <u>Woosuk Seo</u>, Andrew Berry, Prachi Bhagane, Sung Won Choi, Ayse Büyüktür, and Sun Young Park. "Balancing Tensions between Caregiving and Parenting Responsibilities in Pediatric Patient Care". ACM Conference on Computer Supported Cooperative Work and Social Computing (CSCW '19), Austin, TX. https://doi.org/10.1145/3359255
- [J.1] Yasaman S. Sefidgar, <u>Woosuk Seo</u>, Kevin S. Kuehn, Tim Althoff, Anne Browning, Eve Riskin, Paula S. Nurius, Anind K. Dey, and Jennifer Mankoff. "Passively-sensed Behavioral Correlates of Discrimination Events in College Students". ACM Conference on Computer Supported Cooperative Work and Social Computing (CSCW '19), Austin, TX. https://doi.org/10.1145/3359216

Conference Papers (Peer-Reviewed).

- [C.5] Woosuk Seo, Young-Ho Kim, Ji Eun Kim, Megan Fan, Mark Ackerman, Sung Won Choi, and Sun Young Park "Enhancing Pediatric Communication: The Role of an Al-Driven Chatbot in Facilitating Child-Parent-Provider Interaction". ACM CHI Conference on Human Factors in Computing Systems (CHI '25). https://doi.org/10.1145/3706598.3713134
- [C.4] Woosuk Seo, Chanmo Yang, and Young-Ho Kim "ChaCha: Leveraging Large Language Models to Prompt Children to Share Their Emotions about Personal Events". ACM CHI Conference on Human Factors in Computing Systems (CHI '24). https://doi.org/10.1145/3613904.3642152
- [C.3] Woosuk Seo, Joonyoung Jun, Minki Chun, Hyeonhak Jeong, Sungmin Na, Woohyun Cho, Saeri Kim, and Hyunggu Jung "Toward an Al-assisted Assessment Tool to Support Online Art Therapy Practices: A Pilot Study". Proceedings of the 20th European Conference on Computer-Supported Cooperative Work: The International Venue on Practice-centred Computing on the Design of Cooperation Technologies (ECSCW '22). https://doi.org/10.48340/ecscw2022_ep04
- [C.2] Woosuk Seo, Ayse Büyüktür, Sanya Verma, Hyeryoung Kim, Sung Won Choi, Laura Sedig, and Sun Young Park "Learning from Healthcare Providers' Strategies: Designing Technology to Support Effective Child Patient-Provider Communication". ACM CHI Conference on Human Factors in Computing Systems (CHI '21). https://doi.org/10.1145/3411764.3445120
- [C.1] Sun Young Park, <u>Woosuk Seo</u>, Andrew Berry, Hyeryoung Kim, Sanya Verma, Sung Won Choi, and Ayse Büyüktür. "Learning from Positive Adaptations of Pediatric Cancer Patients to Design Health Technologies". ACM CHI Conference on Human Factors in Computing Systems (CHI '20). https://doi.org/10.1145/3313831.3376397

Posters and Workshop Papers (Lightly Peer-Reviewed).....

- [L.3] Woosuk Seo, Sun Young Park, Mark Ackerman, Chan-Mo Yang, and Young-Ho Kim. "Towards Designing a Safe and Reliable LLM-driven Chatbot for Children". CHI 2024 Workshop on Human-centered Evaluation and Auditing of Language Models (HEAL@CHI'24) (Extended Abstract). https://heal-workshop.github.io/papers/20_towards_designing_a_safe_and_r.pdf
- [L.2] <u>Woosuk Seo</u>, and Hyunggu Jung. "Understanding Blind or Visually Impaired People on YouTube through Qualitative Analysis of Videos". ACM International Conference on Interactive Experiences

for TV and Online Video (TVX '18), Seoul, Korea. https://doi.org/10.1145/3210825.3213565

[L.1] Woosuk Seo, and Hyunggu Jung. "Exploring the Community of Blind or Visually Impaired People on YouTube". ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '17), Baltimore, MD. https://doi.org/10.1145/3132525.3134801

Co-organized Workshops....

- [W.2] Francisco Nunes, Nervo Verdezoto, Tariq Andersen, Stina Matthiesen, Chia-Fang Chung, Sun Young Park, Woosuk Seo, and Paul Studenic. "Revisiting Patient-Clinician Interaction in 2022: Challenges from the Field and Opportunities for Future Research". European Conference on Computer-Supported Cooperative Work Workshops (ECSCW '22), Coimbra, Portugal. https://dl.eusset.eu/handle/20.500.12015/4408
- [W.1] Sun Young Park, Francisco Nunes, Andrew Berry, Ayse Büyüktür, Luigi De Russis, Mary Czerwinski, and Woosuk Seo. "Who Cares? Exploring the Concept of Care Networks for Designing Healthcare Technologies". European Conference on Computer-Supported Cooperative Work Workshops (ECSCW '19), Salzburg, Austria. https://dl.eusset.eu/handle/20.500.12015/3270

Invited Talks & Panels

Guest Lecture: Analysis and Design of Nursing Information Systems

05/2025, Seoul National University, Korea

"Enhancing Pediatric Communication: The Role of an Al-Driven Chatbot in Facilitating Child-Parent-Provider Interaction"

Seminar at ACCELERATE Lab

02/2025, Yale University, New Haven

"Human Factors in Designing Health Technologies"

Seminar at Department of Biomedical Informatics

02/2025, Ohio State University, Columbus

"Enhancing Pediatric Communication: From Identifying Challenges to Designing an Al-Driven Chatbot"

Seminar at HiBRID Lab

01/2025, New York University, NYC

"Designing an Al-driven Chatbot to Support Pediatric Communication"

Guest Lecture: Qualitative Research Methods in Design

11/2024, University of Minnesota (Remote)

"Challenges in Parent-Child Health Communication: Methods for Interviewing Different Stakeholders"

Seminar at Design Institute

06/2024, Inje University, Korea

"Enhancing Health Communication with Child Patients: From Needs Identification to Al-driven Chatbot Development"

Guest Lecture: Special Topics in HCI

06/2024, University of Seoul, Korea

"Design for Vulnerable Populations: An Exploratory Study for Designing Child-centered Chatbot"

Seminar with Team Alice

04/2024, University at Buffalo (Remote)

"Enhancing Health Communication with Child Patients: From Needs Assessment to Al-based Application Development"

Panel Talk at SIGCHI Korea Summer Event 2023

07/2023, Hanyang University, Korea

"Things I Wish I Knew Before Studying Abroad"

Research Lightning Talk

07/2023, Seoul National University of Science and Technology, Korea

"Designing Health Communication Technology in a Pediatric Care Context"

Distinguished Paper Invited Talks at HCI Korea Conference

02/2022, Remote

"Learning from Healthcare Providers' Strategies: Designing Technology to Support Effective Child Patient-Provider Communication"

Research Mentoring *The affiliations are based on the mentoring period and may not reflect the latest information.

Jessica Shen (Master's, University of Michigan)	06/2025 - Present
Shamita Rao (Master's, University of Michigan)	06/2025 - Present
Vivian Le (Undergraduate, University of Michigan)	04/2023 - 10/2024
Shruti Jain (Undergraduate, University of Michigan)	09/2022 - 10/2024
Megan Fan (Undergraduate, University of Michigan)	09/2022 - 09/2024
Sanya Verma (Undergraduate, University of Michigan)	09/2019 - 09/2020
Hyeryoung Kim (Master's, University of Michigan)	06/2019 - 09/2020

Professional Services

Journal Reviewer

ACM Transactions on Computing for Healthcare (<u>HEALTH</u>), 2025

Conference Associate Chair (Program Committee)

- O Conference on Human Factors in Computing Systems (CHI), 2026
- Conference on Computer-Supported Cooperative Work And Social Computing (<u>CSCW</u>), 2026

Conference Paper Reviewer

- O Conference on Human Factors in Computing Systems (CHI), 2019-2025
- Conference on Computer-Supported Cooperative Work And Social Computing (<u>CSCW</u>), 2019-2025
- O Conference on Interaction Design and Children(IDC), 2019-2025

Last Updated: August 29, 2025