Minjung Park

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a google scholar

RESEARCH INTERESTS

Human-AI Interaction, Human-Centered AI, HCI innovation, AI in Healthcare

EDUCATION

Carnegie Mellon University

Aug. 2023 - Present

Ph.D. in Human-Computer Interaction, School of Computer Science

Pittsburgh, USA

Advisor: John Zimmerman, Jodi Forlizzi

Korea Advanced Institute of Science and Technology (KAIST)

Sep. 2021 - Jun. 2023

M.S. in Industrial Design | Advisor: Hyeon-Jeong Suk

Daejeon, Korea

Hyeon-Jeong Suk(Chair), Youn-Kyung Lim, Sangsu Lee

Thesis title: Designing Facial Expression Guideline for Avatar-Mediated Communication

Korea Advanced Institute of Science and Technology (KAIST)

Mar. 2018 - Aug. 2021

B.S. in Industrial Design | Advisor: Youn-Kyung Lim

Daejeon, Korea

early graduation

PUBLICATIONS

Conference & Journal Papers

- [c.4] **Minjung Park**, Shuhao Ma, Aashka P Pallath, Tingyu Su, Ashveen Banga, Jeremy M. Kahn, Jodi Forlizzi, and John Zimmerman. **Exploring How to Improve Care Coordination and Adherence to Standards of Care.** *In ACM CHI conference on Human Factors in Computing Systems, CHI'26 (under review)*.
- [c.3] Minjung Park, Jodi Forlizzi, and John Zimmerman. Exploring the Innovation Opportunities for Pre-trained Models. In ACM SIGCHI Conference on Designing Interactive Systems, DIS '25.
- [c.2] Ji-Youn Jung, Devansh Saxena, **Minjung Park**, Jini Kim, Jodi Forlizzi, Kenneth Holstein and John Zimmerman. **Making the Right Thing: Bridging HCI and RAI in Early-Stage AI Concept Selection.** *In ACM SIGCHI Conference on Designing Interactive Systems, DIS '25*.
- [c.1] Keunwoo Kim, Minjung Park, and Youn-Kyung Lim. Guiding Preferred Driving Style Using Voice in Autonomous Vehicles: An On-Road Wizard-of-OZ Study. In ACM SIGCHI Conference on Designing Interactive Systems, DIS '21.
- [j.3] **Minjung Park** and Hyeon-Jeong Suk.**The characteristics of facial emotions expressed in Memojis**. *In Computers in Human Behavior Report (companion journal to Computer in Human Behavior, IF=8.3).*
- [j.2] **Minjung Park**, Soyeong Min, Taesoo Kim, and Hyeon-Jeong Suk. **Investigating the Relationship between Vehicle Front-Images and Voice-Assistants.** *In Korean Society for Emotion and Sensibility.*
- [j.1] Taesu Kim, Gyunpyo Lee, **Minjung Park**, Homg min Lee, Ji-Woo Park, and Hyeon-Jeong Suk. **User Responses to Dynamic Light in Automobiles with EEG and Self-Assessment.** *IEEE Access*.

Posters & Workshop Papers

[p.3] Minjung Park and Abena Boadi-Agyemang. Designing Interactive Agents to Support Emotion Regulation in the Workplace through Guided Art-Making. In the ACM/IEEE International Conference on Human-Robot Interaction 2024 (HRI'24).

- [p.2] Minjung Park and Hyeon-Jeong Suk. New Mobile Adaptation System for Better Avatar-Mediated Communication: Facial Expression in Memoji. In the ACM international Conference on Mobile Human-Computer Interaction 2022 (MobileHCI'22).
- [p.1] Jaehong Kim, Chaeyoon Jeong, Mooyeol Oh, **Minjung Park**, Meeyoung Cha, and Wonjae Lee. Emotions that Make Online Petitions Successful: A contrasting View of Private Signing and Public Sharing. *In international Conference on Computational Social Science* 2022 (*IC2S2'22*).
- [w.1] **Minjung Park** and Hyeon-Jeong Suk. **Emotional Expression in Memoji.** *In CHI 2022 Workshop* (*Future of Emotion in HCI*).

PATENTS

Unmanned Aerial Vehicle	Korean patent #1020150114725
Water Duster Cleaner with Water Supply Control Capabilities	Korean patent #1020150116542
Clean Tool Using Static Electricity	Korean patent #1020150116965
Cleaning Goods for Disinfection	Korean patent #1020200027776

EXPERIENCE

Carnegie Mellon University, Advised by John Zimmerman, Jodi Forlizzi *Research Assistant*

Pittsburgh, PA Sep. 2023 - Present

Guiding designers in identifying opportunity spaces

[c.3][c.2] Exploring innovation opportunities for pre-trained models by analyzing when, where, how, and for whom current LLM (Generative AI)-infused applications are designed. Supporting design innovators in identifying failsafe starting place for creating LLM-infused products and services by providing LLM capabilities and interaction design pattern.

- AI innovation in Healthcare
 - Exploring opportunities of auto-documentation tool in ICU
 Leveraging Generative AI, such as few-shot learning, in clinicians' documentation workflows to explore how it can support auto-documentation systems in rapidly adapting to new clinical practices as standards of care continually improve.
 - Human-AI Research to Increase Adherence to Wakeup and Breathe in ICU
 [c.4] Support the clinical team in enhancing coordinative care by exploring opportunities for computing systems to assist with clinicians' sequential and coordinated workflows, such as Spontaneous Awakening Trials (SAT) and Spontaneous Breathing Trials (SBT).

KAIST Colorlab, Advised by Hyeon-Jeong Suk *Research Assistant & Funded Project Manager (Hyundai Motors)*

Daejeon, Korea Sep. 2021 - May. 2023

• Emotion-enhanced Facial Expressions using Memojis.

Utilizing Participatory Design(PD) method, explored the problems of the existing status quo and designed a guide for avatars' facial expressions in order to support reliable and accurate online communication.

[p.2][w.1] Conducted the 5-Likert questionnaire to explore avatars' emotional conveyance level and confirmed the tendency and impact of one's nationality on the seven emotions.

[j.3] Performed a human assessment and an AI-driven estimation to establish the baseline levels of seven basic emotions conveyed by Memojis.

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• Ambient lights in automobiles

[j.1] Served as Project Manager of a collaborative project with Hyundai Motors, provided surveys and VR(Unity+VIVE) workshops to improve the existing ambient lights in vehicles, performed digital ethnography, and conducted in-depth interviews with truckers.

KAIST Creative Interaction Design Lab, Advised by Youn-Kyung Lim

Daejeon, Korea

Undergraduate Researcher

Jul. 2020 - Jul. 2021

[c.1] Explored user experiences with teaching guiding styles to the Autonomous Vehicle agents to reflect the users' driving-style preferences with driving study on real roads using a Wizard-of-Oz design strategy.

CJ Livecity Seoul, Korea

UX designer Nov. 2020 - *Dec.* 2020

Designed user scenarios for future attraction and was hired as an official UX designer.

KAIST Colorlab, Advised by Hyeon-Jeong Suk

Daejeon, Korea

Undergraduate Researcher

Jul. 2019 - Sep. 2019

[j.2] Conducted the survey, matching Voice Agent and Front car image, to explore the most aligned car front design with the Voice Agents with PCA(Principal Component Analysis).

KAIST Codesign Interaction Design Research Lab, Advised by Tek-Jin Nam

Daejeon, Korea

Undergraduate Researcher

Mar. 2018 - Dec. 2018

Designed a 3D-printed tumbler, changed its pattern using augmented prototyping, and explored the viability and reliability of the augmented prototyping method.

HONORS AND AWARDS

IF Award in communication design

May. 2022

Stock information app service which visualizes past stock charts through sentiment analysis. (selected among 11000+ submissions)

Most Contributed-to-Creativity Student

2022

Honored with the title of most Creativity Student in **Tokyo Tech**'s 2022 online summer school.

Leadership Mileage Certificate, KAIST

2020

Honor for top 3% among 3,600+ students with top achievements in leadership activities including volunteering and campus activities.

Scholarship of Mintsage

Nov. 2019

Received a \$200 Industrial Design scholarship from Mintsage for outstanding design accomplishments.

Intel ISEF 2017

Selected as a finalist among more than 1,800 outstanding students and as a representative of Korea in material science.

Talent Award of Korea 2016

A total of 100 people are selected as Korea's next leaders.

(Award of Deputy Prime Minister and Minister of Education with \$3000 scholarship)

INVITED TALK

Mapping the Innovation Space: Identifying Opportunities for LLM-Powered Systems

Aug. 2025

@ UIUC SALT Lab, lead by Yun Huang

Mapping the Innovation Space : Identifying Opportunities for LLM-Powered Systems

Jul. 2025

@ Northeastern CHAI Lab, lead by Smit Desai

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SERVICES

Reviewing

ACM/SIGCHI Conference on Designing Interactive Systems (DIS) 2025 2024

ACM/SIGCHI Conference on Human Factors in Computing Systems (CHI) 2023, 2024

Computers in Human Behavior Jounal

ACM/SIGCHI Conference on Human Robot Interaction (HRI) 2024

Student Volunteer

DIS 2025: PC meeting student volunteer **MobileHCI 2022**: SV's t-shirt designer

Proceed to the in-person conference in more than 20 hours and selected as Gifted Artist

SKILLS

Language

Korean(Native), English(Full professional proficiency), Chinese(Beginner)

Programming and Development

Web: HTML, CSS

Product Development : Processing, Arduino, C++, C Data Processing : Python(numpy, pandas, plotly), R, SPSS

Data visualization : R(ggplot)

Design and Media Creation

Adobe: Photoshop, Illustrator, After Effects, Lightroom, XD

UI tool: Figma, Miro, Sketch, Protopie

Modeling tool: Keyshot, Fusion 360, Unity, Blender

Word editing: Latex

MENTORING

CMU Undergrad AI mentoring program (committee)	July. 2024 - Present
SCS HCII Independent Studies (mentor)	Sep. 2024 - current
Tingyu Su prev CMU MIIPs, now @ Youlify	Sep. 2024 - Dec. 2024
• Katherine Niuu <i>CMU MHCI</i>	Sep. 2024 - Dec. 2024
• Ashveen Banga CMU CS	Sep. 2024 - Dec. 2024

CMU Undergrad AI mentoring program (mentor)

Mentoring Carnegie Mellon University, School of Computer Science undergraduate students relate to AI research. The students below were mentoring students.

EXTRACURRICULAR ACTIVITIES

SCS PhD Applicants Mentor	2024, 2025
Korean Class Volunteering Work A teacher of Korean Class at Carnegie Library	Sep. 2023 - Present
KAIST Student Ambassader, KAINURI A member of Social Media Team	Mar. 2018 - Feb. 2020
KAIST Vision Magazine Editor	Mar. 2018 - Feb. 2020
THE-KAIST Innovation & Impact Summit Protocol Manager	Mar. 2019
KAIST Undergraduate Tennis Club A member of executives in 2018.	Mar. 2018 - Dec. 2018
KAIST Freshmen Student Volunteer	2018