

# SANGWOOK LEE

Research Internship Candidate

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I investigate how **generative AI**, particularly **LLM-powered chatbots**, can bridge the **information gap** by adapting to diverse cognitive needs. Through this work, I aim to **make advanced technology more inclusive and meaningful** in everyday life for people with diverse backgrounds

## EDUCATION

AUG 2024 PRESENT Blacksburg, VA	<b>Virginia Tech</b> Ph.D. in Computer Science (Advisor: <a href="#">Sang Won Lee</a> )
SEP 2021 FEB 2024 Daejeon, Korea	<b>Korea Advanced Institute of Science and Technology</b> M.S. in Computer Science (Advisor: <a href="#">Insik Shin</a> ) <u>Thesis: A Task-Oriented Multimodal Agent System to Enhance Mobile User Interface Accessibility for Older Adults</u>
MAR 2014 AUG 2020 Pohang, Korea	<b>Pohang University of Science and Technology</b> B.S. in Convergence IT Engineering (Cum Laude)

## WORK EXPERIENCE

FEB 2024 AUG 2024 Seoul, Korea	<b>Fluiz, Inc.</b> Software Engineer (CEO: <a href="#">Insik Shin</a> ) <ul style="list-style-type: none"><li>Led the development of an intelligent process automation system, tailored for commercial ERP solutions, leveraging LLMs to enhance operational efficiency and flexibility.</li><li>Designed and implemented a chatbot optimized for seamless integration with ERP systems, improving user accessibility and productivity.</li></ul>
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## RESEARCH

JUN 2023 AUG 2023 South Bend, IN	<b>SaNDwich Lab, University of Notre Dame</b> Visiting Student (Mentor: <a href="#">Toby Jia-Jun Li</a> ) <ul style="list-style-type: none"><li>Coordinated a study on a task-oriented multimodal agent system to improve older adults' smartphone experience</li><li>Mentored two undergraduates to develop a conversational agent that interacts with mobile web applications powered by OpenAI API</li></ul>
SEP 2020 SEP 2021 Daejeon, Korea	<b>KIXLAB, KAIST</b> Research Intern (Mentor: <a href="#">Juho Kim</a> , <a href="#">Jean Y. Song</a> ) <ul style="list-style-type: none"><li>Led research on a system that enables community moderators to configure rule-based moderation tools</li><li>Conducted semi-structured interviews and user studies with Reddit moderators</li><li>Developed a web app (React/Django) that tests rules with real-world posts, visualizing any issues and identifying posts that are potentially in violation or erroneous</li></ul>
JUL 2017 AUG 2017 Seoul, Korea	<b>HCI+D Lab, Seoul National University</b> Research Intern (Mentor: <a href="#">Joonhwan Lee</a> ) <ul style="list-style-type: none"><li>Conducted a participatory design workshop with female gamers to address sexual harassment in online games</li></ul>

## EXPERTISE

### HCI Research

*Semi-structured Interview*  
*Thematic Analysis*  
*Affinity Diagram*  
*Open Coding*  
*Heuristic Evaluation*  
*Usability Testing*  
*Participatory Design Workshop*

### UX Design

*Graphical UI Design*  
*Interaction Design*  
*Participatory Design*  
*Data Visualization*  
*Lo-Fi Prototyping*  
*Hi-Fi Prototyping*

### Tools

**Prototyping tools**  
*Figma, Arduino*

**Front-end development**  
*React, React Native, Flutter*

**Back-end development**  
*Express, Fastify, Django, Prisma*

**Data processing**  
*LangChain, Pandas, PyTorch, Plotly*

**Programming Language**  
*C, C++, JavaScript, TypeScript, Python, R, Dart*

### Language

*Korean (native)*  
*English (fluent)*

## JOURNAL / PROCEEDINGS

- [C.3] **ModSandbox: Facilitating Online Community Moderation Through Error Prediction and Improvement of Automated Rules**  
Jean Y Song\*, **Sangwook Lee\***, Jisoo Lee, Mina Kim, Juho Kim  
(\*Equal Contribution)  
*CHI '23: Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems*
- [C.2] **A-Mash: Providing Single-App Illusion for Multi-App Use Through User-centric UI Mashup**  
Sunjae Lee, Hoyoung Kim, Sijung Kim, **Sangwook Lee**, Hyosu Kim, Jean Young Song, Steve Ko, Sangeun Oh, Insik Shin  
*MobiCom '22: Proceedings of the 28th Annual International Conference on Mobile Computing And Networking*
- [C.1] **Implications for the Design of Sexual Harassment Prevention System for Online Games**  
Wookjae Maeng, Hyeok Kim, Junhee Woo, Youngjin Huh, Seo-young Lee, Jeewon Choi, **Sangwook Lee**, Jinsu Eun, Kung Jin Lee, Joonhwan Lee  
*Proceedings of HCI Korea 2018*

## LIGHTLY REVIEWED PAPERS

- [P.3] **LV-Linker: Supporting Fine-grained User Interaction Analyses by Linking Smartphone Log and Recorded Video Data**  
Hansoo Lee, **Sangwook Lee**, Youngji Koh, Uichin Lee  
*UIST '22 Adjunct: Adjunct Proceedings of the 35th Annual ACM Symposium on User Interface Software and Technology*
- [P.2] **Mutiv: Music-based Mobile Application to Support Joggers**  
**Sangwook Lee**, Hyunggu Jung  
*2016 IEEE International Conference on Healthcare Informatics (ICHI)*
- [P.1] **LaneMate: Car sensing system for the deaf**  
 **Sangwook Lee**, Yunho Kang, Yukyoung Lee  
*CHI EA '16: Proceedings of the 2016 CHI Conference Extended Abstracts on Human Factors in Computing Systems*  
*Student Design Competition,  Honorable Mention*

## AWARDS

- OCT 2022 Gary Marsden Travel Awards, SIGCHI, ACM
- OCT 2017 1st Place, The 5th Human Rights Research Projects Contest, SNU, Korea
- MAY 2016 CHI 2016 Student Design Competition Honorable Mention, ACM

## TEACHING

- Spring 2025 Web Application Development, Virginia Tech CS5244, Instructor: Tessema Mengistu
- Fall 2023 Human Computer Interaction, KAIST CS584, Instructor: Geehyuk Lee
- Fall 2020 Operating System, KAIST CS330, Instructor: Insik Shin

## EXPERIENCE

**Student Volunteer**  
*CHI 2025 (Media Team Captain)*  
*CHI 2024 (Photography SV)*  
*CHI 2023 (On-site)*  
*CHI 2022 (Remote)*  
*CHI 2021 (Remote)*  
*CSCW 2020 (Remote)*

### Reviewer

*CSCW 2024*  
*CHI 2023 LBW*

### Online Community

*Clan (7 years)*  
*DCInside (4 years)*  
*Reddit (4 years)*