Jong Ho Lee

Email: mikejhlee04@gmail.com | Linkedin: linkedin.com/in/leejongho92 | Google Scholar: https://tinyurl.com/jongholee

Summary

I research topics in Human-Computer Interaction (HCI), Human-AI Interaction, and Health Informatics. I am particularly interested in how generative AI can be utilized to build human-centered assistive technologies for stroke survivors. My current research explores novel AI-powered AAC (AAC - Augmentative and Alternative Communication) technology for stroke survivors with language disabilities. My expertise bridges HCI research and software engineering to create low-cost, customizable solutions that increase independence and well-being for people with complex communication needs.

Education

University of Maryland, College Park — ***College Park, MD, USA***
Ph.D., Information Studies (Human-Computer Interaction focus) — *2021 - Current*

University of California, Irvine — ***Irvine, CA, USA***
M.S., Computer Science — *2018 - 2020*

Chung-Ang University — ***Seoul, South Korea***
B.S., Computer Science and Engineering — *2011 - 2018*

Publications

Jong Ho Lee and Stephanie Valencia Valencia. 2026. **Do-It-Yourself AAC: Co-Designing User-Programmable AI Communication Tools with People with Aphasia**. In *Proceedings of the 2026 CHI Conference on Human Factors in Computing Systems (CHI '26)*. https://doi.org/10.1145/3772318.3790321 (*In Press*)

Lei Mao, **Jong Ho Lee**, Yasmeen Faroqi-Shah, and Stephanie Valencia Valencia. 2025. **Design Probes for AI-Driven AAC: Addressing Complex Communication Needs in Aphasia**. In *Proceedings of the 2025 ACM Designing Interactive Systems Conference (DIS '25)*. https://doi.org/10.1145/3715336.3735736

Jong Ho Lee, Sunghoon Ivan Lee, and Eun Kyoung Choe. 2024. **GoalTrack: Supporting Personalized Goal-Setting in Stroke Rehabilitation with Multimodal Activity Journaling**. In *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT) Vol. 8, No. 4*. https://doi.org/10.1145/3699723

Jong Ho Lee, Jessica Schroeder, and Daniel A. Epstein. 2021. **Understanding and Supporting Self-Tracking App Selection**. In Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT) Vol. 5, No. 4. https://doi.org/10.1145/3494980

Daniel A. Epstein, Clara Caldeira, Mayara Costa Figueiredo, Xi Lu, Lucas M. Silva, Lucretia Williams, **Jong Ho Lee**, Qingyang Li, Simran Ahuja, Qiuer Chen, Payam Dowlatyari, Craig Hilby, Sazeda Sultana, Elizabeth V. Eikey, and Yunan Chen. 2021. **Mapping and Taking Stock of the Personal Informatics Literature**. In *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT) Vol. 4, No. 4*. https://doi.org/10.1145/3432231

Moonbeom Kim, **Jong Ho Lee**, and Jeongyeup Paek. 2018. **Neutralizing BLE Beacon-based Electronic Attendance System using Signal Imitation Attack**. In *IEEE Access, Vol. 6*. https://doi.org/10.1109/ACCESS.2018.2884488

Experience

Microsoft — ***Redmond, WA, USA***
UX Researcher Intern — *May 2025 - Aug 2025*

- Led benchmark studies to evaluate user experience quality for key Microsoft Fabric features.
- Engineered data pipelines using KQL and Python, and applied network analysis (NetworkX) to surface UX friction points.
- Created user journey and state transition visualizations in D3.js to surface experience bottlenecks for key stakeholders.
- Leveraged generative AI tools (e.g., Microsoft Copilot) to improve research workflow by summarizing qualitative responses and building prompts to scaffold research reports.
- Presented research insights in cross-functional teams to drive customer-centric product design decisions.

Human-Computer Interaction Lab, University of Maryland ***College Park, MD, USA***
PhD Researcher *Aug 2021 - Current*

Project: Towards User-Programmable AI-Powered Communication Tools for Adults with Aphasia (published in DIS '25, CHI '26)

- Led co-design workshops with adults with language disabilities to explore how block-based programming can make generative AI language-light and accessible.
- Developed web app prototypes using React and OpenAI API to explore how generative AI can support communication for people with language disabilities.
- Conducted in-depth interviews using the developed web apps to understand how generative AI can be designed for aphasia.

Project: Supporting Patient-Centered Goal-Setting using Mobile App Journals in Stroke Rehabilitation (Published in ACM IMWUT)

- Organized and led a research project examining how multimodal interaction in mobile technology can address accessibility issues for stroke survivors and support goal-setting in rehabilitation.
- Developed a mobile self-tracking app, *GoalTrack*, using cross-platform frameworks. (*React Native with Typescript*).
- Conducted accessible in-person user studies for GoalTrack with 13 people with disabilities.
- Used R to analyze quantitative data and Nvivo to analyze qualitative data to find concrete design recommendations for multimodal interfaces for stroke survivors.

Personal Informatics Everyday (PIE) Lab, University of California Irvine ***Irvine, CA, USA***
Research Assistant *Dec 2019 - May 2021*

- Conducted in-depth qualitative interviews with 18 participants to understand how app stores can be better designed for self-tracking app users. Published findings in ACM IMWUT, vol. 5, no. 4.
- Analyzed 80+ HCI research papers to map out current understandings of self-tracking technology user behavior and trends, resulting in a publication in *ACM IMWUT, vol. 4, no. 4*.

Networked Systems Lab, Chung-Ang University ***Seoul, South Korea***
Undergraduate Research Assistant *Jan 2017- Aug 2018*

- Investigated the feasibility of using acoustic signals to find distances between drones by implementing a time-of-arrival distance measuring algorithm using Android's Java SDK.

Virtual Reality Lab, Chung-Ang University ***Seoul, South Korea***
Undergraduate Research Assistant *Jan 2015 - Jan 2016*

- Built a 3D virtual world compatible with Oculus Rift DK2 and Microsoft Kinect using Unity3D and C# and helped design 4 user interfaces (keyboard control, superman gesture, birdlike gesture, hand gesture) to navigate the 3D virtual world.
- Helped conduct in-person user studies for the 3D virtual world with 31 participants.

Editorial & Reviewing Service

ACM Conference on Human Factors in Computing Systems (CHI): 2026, 2025, 2023

ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW): 2025

ACM Transactions on Computer-Human Interaction (ToCHI): 2025

Awards & Honors

ACM CHI Special Recognition for Outstanding Reviews: 2026, 2025

University of Maryland Dean's Fellowship: 2021

Professional Services

Academic Conference Volunteering

- ACM Conference on Human Factors in Computing Systems (CHI): 2022
- ACM Designing Interactive Systems Conference (DIS): 2021

Teaching Experience

INST326 Object Oriented Programming in Python — ***University of Maryland, College Park***
Graduate Teaching Assistant — *Aug 2023 - Current*

ICS 33 Intermediate Programming in Python — ***University of California, Irvine***
Graduate Teaching Assistant — *Jan 2020 - Jun 2020*

IN4MATX 133 User Interaction Software — ***University of California, Irvine***
Graduate Teaching Assistant — *Sep 2019 - Dec 2019*

Skills

Programming Languages and Tools: Python, C, C++, Java, Javascript, C#, R, Bash / Shell scripting, Git, Github, React, React Native, Android SDK, iOS development, cloud platforms (AWS, Azure).

Research Methods & Data Analysis: usability testing, interviews, surveys, diary studies, participatory design, telemetry analysis, benchmark studies, ESM, UX health studies, statistical analysis (hypothesis testing, regression analysis), qualitative analysis