Michael (Jong Ho) Lee

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Summary

Ph.D. candidate in Human-Computer Interaction (HCI) with proven experience in mixed-methods UX research, product telemetry analysis, and software development. Ph.D. research focuses on the development of user-programmable AI-powered communication support technology for people with language disabilities. My work includes applying human behavior analysis and modeling to user-generated log data to understand behavior patterns and inform product decisions.

Education

University of Maryland, College Park   *College Park, MD, USA*
Ph.D., Information Studies (Human-Computer Interaction focus)   *Expected 2026*

University of California, Irvine   *Irvine, CA, USA*
M.S., Computer Science   *Jun 2020*

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

Experience

Microsoft - UX Researcher Intern   *Redmond, WA, USA*
Microsoft Azure Data Org   *May 2025 - Aug 2025*

- Led benchmark studies to evaluate user experience quality for key Microsoft Fabric features.
- Engineered product telemetry data pipelines using KQL and Python, and modeled user behavior using network analysis (NetworkX) and Markov Chains.
- 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 automate data cleaning and analysis workflows, improving productivity by 2x.
- Presented research insights in cross-functional teams to drive customer-centric product design decisions.

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

Project: Towards User-Programmable AI-Powered Communication Tools for Adults with Aphasia

- 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, published findings in *ACM DIS 2025*.

Project: Supporting Patient-Centered Goal-Setting using Mobile App Journals in Stroke Rehabilitation

- 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.
- Implemented an app transition logger in *GoalTrack* using Redux MiddlewareAPI to model user behavior.
- Used R to analyze quantitative data in log data and Nvivo to analyze qualitative interview data to find concrete design recommendations for multimodal interfaces for stroke survivors. Published findings in *ACM IMWUT, vol. 8, no. 4*.

Personal Informatics Everyday (PIE) Lab - Research Assistant   *Irvine, CA, USA*
University of California, Irvine   *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 - Undergraduate Research Assistant *Seoul, South Korea*
Chung-Ang University *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 - Undergraduate Research Assistant *Seoul, South Korea*
Chung-Ang University *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.

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).

UX Research: usability testing, interviews, surveys, diary studies, participatory design, telemetry analysis, benchmark studies, ESM, UX health studies.

Data Analysis and Engineering: statistical analysis (hypothesis testing, regression analysis), supervised machine learning (linear regression, logistic regression, Bayes classifiers, decision trees, support vector machines, etc.), deep learning (CNNs, RNNs, LSTM, etc.), data visualizations (D3.js, plotly), human behavior analysis and modeling

Selected Publications

Jong Ho Lee. 2025. **Do-It-Yourself AAC: Towards Programmable AI-driven Tools to Support Communication for People with Aphasia**. Presented In *ACM SIGACCESS ASSETS 2025 Doctoral Consortium*. *(lightly-peer reviewed)*

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

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*

Professional Services

Reviewer, ACM Conference on Human Factors in Computing Systems (CHI): 2026 (1 Special Recognition for Outstanding Reviews), 2025 (1 Special Recognition for Outstanding Reviews), 2023
Reviewer, PACM Human-Computer Interaction, CSCW: 2025
Reviewer, ACM Transactions on Computer-Human Interaction (ToCHI): 2025