Ji Hyun Kim

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Research Interests

Personal Health Informatics and Self-Tracking; Data-Driven and Human-Centered Computing for Health and Well-being; Mobile Sensing; Behavior Modeling.

Education

University of Virginia May 2025
Master's of Computer Science in Science and Engineering *GPA: 3.97/4.0*

Ewha Womans University Aug 2021
B.A. in German Language and Literature and International Studies *GPA: 3.71/4.3*

Research Experience

Human-AI Technology Lab, University of Virginia Jun. 2024–Present
Research Assistant/M.S. Student (Advisor: Prof. Afsaneh Doryab)

- Research Project: Social Walking
  - Designed and executed a multi-phase mixed-methods studies to examine how paired walking promotes physical activity and social connections among young adults.
  - Led a two-phase participatory design workshop and an extensive online survey to identify user needs and co-create features for co-walking mobile application.
  - Translated qualitative and quantitative findings into actionable items and contributed to defining core app features.
- Research Project: Digital Footprints
  - Conducted a pilot study on collecting personal digital history data and connecting them with participants' self reported emotional and physical states.
  - Contributed to prototyping an interactive dashboard to visualize temporal and spatial patterns using the collected data.
  - Explored how such dashboards can support reflection on daily routines, energy, and physical activity as a foundation for personal health informatics tool.

Industry Experience

Ipsos Korea | ***Customer Experience Department*** Mar. 2021–May 2023
Sr. Research Executive/Research Executive/Research Intern

- Conducted customer journey research combining quantitative surveys and qualitative interviews across electronics, automobile, and hospitality industries.
- Led UX investigations of online platforms (e.g., website, app, chat features) for a global electronics company, analyzing user behavior and sentiment to inform design improvements.
- Synthesized multi-country survey results into strategic insights and created client-facing presentations highlighting customer experience trends.
- Contributed to end-to-end study cycles, from client briefing and research design to final report delivery.
- Supported stakeholder decision-making by converting survey tables (Excel) into actionable suggestions and visualized slides.
- Analyzed customer feedback on post-purchase delivery and repair experience to identify service improvement areas.

Academic Projects

- **Redesigning mHealth App (Human Computer Interaction)** : Redesigned privacy-information flows using context-sensitive UI elements and conducted UX testing showing improved user understanding.
- **Gesture-based musical glove (Engineering Interactive Technologies)** : Built sensor-driven glove to detect hand gestures and trigger musical output.
- **MNIST Classifier Evaluation (Machine Learning)** : Implemented and compared Decision Tree, Random Forest, and AdaBoost models on MNIST style datasets.
- **Short Text Sentiment Analysis (NLP)** : Built ML/BERT sentiment classifiers and analyzed cross-platform public comment trends.
- **Star Wars Script Text Analysis (Exploratory Text Analytics)** : Applied TF-IDF, PCA, LDA, and sentiment analysis to examine storyline and emotional patterns
- **Multi-Agent Systems for Behavior Modeling (Computational Behavior Modeling)** : Modified Token Passing algorithms and compared their performance with A* and RL baselines in constrained pickup and delivery environments.

Skills

Languages: Python, SQL, Java, LaTeX

Libraries: Pandas, NumPy, Scikit-learn, Matplotlib, Seaborn, NLTK, Gensim

Tools: Git, Jupyter, VS Code, Google Colab