

Su Jin (Susan) Lee

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EDUCATION

PhD, Architecture (Concentration in Industrial Design)

GEORGIA INSTITUTE OF TECHNOLOGY

Advised by Jon A. Sanford

Atlanta, GA
2018 - Current

MS, Occupational Therapy

WASHINGTON UNIVERSITY IN ST. LOUIS

highest honors

St. Louis, MO
2011 - 2013

BA, Psychology

UNIVERSITY OF WEST GEORGIA

summa cum laude

Carrollton, GA
2009 - 2011

CURRENT FIELDS OF INTEREST

Design and technology for aging, assistive technology, universal design, aging with disability, environmental accessibility and modification, aging in place

PROFESSIONAL EXPERIENCE

Clinical Assistant Professor

Byrdine F. Lewis College of Nursing and Health Professions, Georgia State University

Atlanta, GA
Aug 2020 - Current

- Clinical faculty position in the Department of Occupational Therapy with responsibilities in research, teaching, mentorship, and service to the University and community

Research Scientist II (July 2018 - July 2020)

Research Scientist I (February 2014- June 2018)

Center for Inclusive Design & Innovation

(formerly known as the Center for Assistive Technology and Environmental Access)

Georgia Institute of Technology

Atlanta, GA
2014 - 2020

- Serve as investigator, project coordinator, and principal investigator on internal, foundation, and federally funded research related to research and development of technologies to support successful activity participation in the home and community by older adults and individuals with disabilities
- Design, perform, and oversee IRB submissions and data collection to ensure data integrity, quality control, and protocol compliance
- Lead and participate in outreach opportunities (presentations, in-service, demonstrations) to engage community partners to facilitate technology-user feedback loop

Occupational Therapist, Per Diem

North Fulton Hospital

Roswell, GA
2014 - 2015

- Per Diem staff therapist in 60-bed inpatient rehabilitation unit

PUBLICATIONS

Peer Reviewd Journal Articles

- **Lee, S.J.**, Mehta, R., Oh, K., Prilutsky, B., & Sanford, J. (2018). Effects of grab bar dimensions on biomechanics of stand-to-sit and sit-to-stand transfers. *Assistive Technology: Disability & Rehabilitation*, 14(3), 292-300.
- **Lee, S.J.**, Sanford, J., Calkins, M., Melgen, S., Endicott, S., & Phillips, A. (2017). Beyond ADA Accessibility Requirements: Meeting Seniors' Needs for Toilet Transfers. *HERD: Health Environments Research & Design Journal*, 1(2), 32-44

Invited Articles

- Pedito, C., Akselrud, R., Grun, N., Chabot, M., Conners, B., **Lee, S.J.**, Miller, C., & Ndwaru McGlamery. (2019). Advocating for occupational therapy in response to the CMS Home Health Patient-Driven Groupings Model. *AOTA SIS Quarterly Practice Connections* 4(2), 14-7.
- Pedito, C., Akselrud, R., Grun, N., Chabot, M., Conners, B., **Lee, S.J.**, Miller, C., & Ndwaru McGlamery. (in press). The Value of home health occupational therapy practitioners in home modifications. *AOTA SIS Quarterly Practice Connections*, 4(1), 17-19.
- **Lee, S.J.** (November 2016). Innovation for human-centered technologies in the home: how can occupational therapy input contribute to the process? *AOTA SIS Quarterly Practice Connections*, 1(4).

Conference Presentations (with Proceedings)

- **Lee, S.**, Bhattacharjya, S., & Sanford, J. (2020). Linking Toilet Transfer Performance to Task-Relevant Environmental Features and Design Attributes. Accepted for presentation at the American Congress of Rehabilitation Medicine Annual Conference 2020.
- Aflatoony, L. & **Lee, S.** (2020). AT Makers: A Multidisciplinary Approach to Co-Designing Assistive Technologies by Co-Optimizing Expert Knowledge. Accepted for presentation at Participatory Design Conference (PDC 2020).
- Aflatoony, L. **Lee, S.** (2020). CODEA: A Framework for Co-Designing Assistive Technologies with Occupational Therapists, Industrial Designers, and End-users with Mobility Impairments. Accepted for presentation at DESIGN Conference (DESIGN 2020).
- Milchus, K., Swarts, M., Malsevic, M., & **Lee, S.J.** (June, 2015). Virtual Home Modifications Educational Assistant. Paper presented at the meeting of the Rehabilitation Engineering and Assistive Technology Society of North America; Denver, CO.

Conference Presentations (without Proceedings)

- **Lee, S.**, & Aflatoony, L. (2020). Leveraging rapid prototyping technologies to co-create custom assistive technology solutions with designers, occupational therapists, and end users. Accepted for presentation at the 2020 American Occupational Therapy Association Annual Conference & Expo, Boston, MA.
- Aflatoony, L. & **Lee, S.** (2019). Participatory design of DIY assistive technology with occupational therapists, industrial designers, and an individual with motor impairments. Accepted for presentation at the Fourteenth International Conference on Design Principles & Practices, New York, NY.
- Jones, B., Sanford, J., **Lee, S.**, & Mahajan, H. (2020). SmartBathroom: Enhancing personalization of assistive technologies to improve bathroom transfers. Accepted for presentation at 2020 Assistive Technology Industry Association Conference, Orlando, FL.
- Petito, C., Chabot, M., & **Lee, S.** (2019). Advocating for occupational therapy in response to the patient-driven groupings model. Presentation at the 2019 American Occupational Therapy Association Annual Conference & Expo, New Orleans, LA.
- **Lee, S.**, Liaqat, A., Mastrangelo, J. Niculescu, I., Shastri, K., & Wada, M. (2019). Co-creation of an interactive product to foster social connection and engagement among older adults and their social networks. Presentation at the 2019 AGE-WELL Canada Annual Conference, New Brunswick, Canada.
- **Lee, S.J.**, & Fowler, E. (2018) Bathroom Transfer Technologies: Role of occupational therapy in their development. Georgia Occupational Therapy Association Annual Conference and Professional Meeting; Jekyll Island, GA.

- **Lee, S.J.**, & Sanford, J. Assistive Technology and Environmental Modifications for Caregiver-Assisted Toilet Transfers: Recent Advances in Research and Development (2018). Presentation at the 2018 American Occupational Therapy Association Annual Conference & Expo, AOTA/RESNA Advanced Technology Track; Salt Lake City, UT.
- **Lee, S.J.**, Todd, R., Milchus, K., Sanford, J., Swarts, M., & Langston, C. (2015) Virtual Home Modifications Education Assistant (VHMEA) and its impact on occupational therapy practice. Tech Day presentation at the 2015 American Occupational Therapy Association Annual Conference & Expo 2015; Nashville, TN.
- **Lee, S.J.**, Stark, S., & Sturdevant, R. Test-retest reliability of the In-Home Occupational Performance Evaluation (I-HOPE): Is there a difference between an e-based assessment and traditional methods? Poster presented at the 2014 Georgia Occupational Therapy Association Annual Conference and Professional Meeting; Augusta, GA.

PERFORMANCE OF FUNDED RESEARCH

Current Projects- External

Sponsor: National Institute on Disability, Independent Living, and Rehabilitation Research
Field Initiated Project **Funding Amount:** \$ 599,296 **Budgetary Authority?** Yes

Period of Performance: October 2017 - Present

PI: Lee, Sanford

Description: This project investigates environmental factors that create barriers and facilitators to caregiver assisted transfers for individuals aging with disability to inform the development of design criteria for dyadic-centered AT/EM toilet transfer interventions.

Contributions: Overall oversight of project; establish community partners with organizations to facilitate recruitment and research collaboration at Georgia Tech; mentor occupational therapy graduate students toward masters project conducting a scoping review on the best available evidence for interventions to address transfer impairments among caregiving dyad population

Sponsor: National Institute on Disability, Independent Living, and Rehabilitation Research Rehabilitation Engineering Research Center (RERC) on the Technologies to Support Successful Aging with Disability

Funding Amount: \$ 4.6 million **Budgetary Authority?** No

Period of Performance: October 2014 - Present

PI: Sanford, Rogers, Mitzner **Role:** Investigator (D2 Smart Bathroom Technologies)

Description: To conduct programs of advanced rehabilitation engineering and technical R&D to increase knowledge about, availability of, and access to effective, universally designed technologies that enable people to sustain independence, maintain health, safely engage in basic activities of daily living at home and the community, and participate in society as they age with disability

Contributions: Conduct participant studies and collection of longitudinal data and OT expert scoring of transfer performance data using the Smart Bathroom system.

Completed Projects- External

Sponsor: Hulda and Maurice Rothschild Foundation

Determination of Grab Bar Specifications for Independent and Assisted Transfers in Residential Care Settings

Funding Amount: \$285,000 **Budgetary Authority?** No

Period of Performance: February 2014 - April 2016

PI: Sanford **Role:** Investigator

Description: To identify the spatial and configurational dimensions of grab bars that effectively support toilet transfers of older adults living in senior housing.

Contributions: Recruitment of study subjects by phone, e-mail, listservs, ensure participant eligibility per research protocol; administer research protocols and human subject testing; collect data; keep accurate records of work undertaken in preparation for analysis and interpretation of results; assist in conducting statistical analysis and interpretation of results; contribute to production of study reports and peer-reviewed publications.

Sponsor: National Institute on Disability, Independent Living, and Rehabilitation Research
Virtual Home Modifications Education Assistant **Funding Amount:** \$599,200 **Budgetary Authority?** No
Period of Performance: February 2014 - April 2015

PI: Sanford, Milchus **Role:** Investigator

Description: Development of an online Virtual Home Modifications Education Assistant (VHMEA) that demonstrates need for home modifications for people with disabilities, allowing users to encounter and solve problems, as well as examine the results of modifications and universal design efforts.

Contribution: Assist in the identification of features to be included in the virtual home and avatars; conduct usability testing; contribute to dissemination activities.

Completed Projects- Internal

Sponsor: College of Design Research Faculty Development Grant, Georgia Institute of Technology
Design Considerations for Caregivers and Care Recipients during Bathroom Activity Performance

Funding Amount: \$7,987 **Budgetary Authority?** Yes

Period of Performance: August 2017 - August 2018

PI: Lee

Description: To identify design and environmental factors that create barriers and facilitators to caregiver-assisted transfers for individuals aging with disability to develop design. The goal of the pilot study is to generate evidence base for a larger scale proposal to the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR).

TECHNICAL CONTRIBUTIONS & INNOVATIONS

Research Reports

- Sanford, J., Calkins, M., & Lee, S.J., "Determination of Grab Bar Specifications for Independent and Assisted Transfers in Residential Care Settings," Final Report. The Mayer-Rothschild foundation, 2016. Total pages: 24. Under the supervision of PIs, Lee developed initial draft of the report which provided a detailed overview of the four-phased study undertaken to provide a convincing argument for changing or supplementing existing Americans with Disabilities Act guidelines and standards for buildings primarily resided by older adults with disabilities. www.ideasinstitute.org/PDFs/Rothschild-Grab-Bar-Study-Final-Report_1.pdf

Media Coverage

- Design and Technologies for Healthy Aging & RERC TechSAge. Fulton County Government TV. (2017, July). <https://bit.ly/2Bt24t4> (Relevant segment begins at 9:30)

OUTREACH AND OTHER PROFESSIONAL DUTIES

Professional Membership & Service

- Design and Technology for Healthy Aging, Georgia Tech Multidisciplinary Initiative (Organizer, 2015 – 2018)
- American Occupational Therapy Association (Member, 2011 – Present; Home and Community Health Special Interest Section Professional Development Coordinator [elected position] 2015- 2018; Technology Coordinator [elected position], 2018- Present)
- Statewide Independent Living Council of Georgia (Committee member, 2015 – Present)
- Georgia Occupational Therapy Association (Member, 2014-Present)
- Korean-American Occupational Therapy Association (Member, 2011-Present)
- Washington University Student Occupational Therapy Association (Member, 2011– 2013; Executive board member, 2012 - 2013; Media Relations Chairperson, 2012 - 2013)

Professional Activities

- Journal Reviewer, Health and Environments Research & Design (2018-)
- Journal Reviewer, Journal of Aging and Environment (2018-)

Volunteer Activities

- Volunteer, Aging 2.0 Atlanta Chapter Co-Organizer, Global Startup Search Event (2017)
- Centro Hispano Marista (Language Arts GED Instructor, 2015)
- West Georgia Technical College LIFT (GED Teacher's Assistant, 2009-2010)

HONORS & AWARDS

- College of Design Outstanding Research Faculty Award (2020)
- Best demo, AGE-WELL Canada Annual Conference (2019)
- 1st place, Best product pitch, AGE-WELL Canada Summer Institute (2019)

PROFESSIONAL LICENSES

- National Board for Certification in Occupational Therapy (2014 - Present) #323485
- Georgia State Board of Occupational Therapy (2014 - Present) #OT005881

RELATED SKILLS

Statistical Software: SPSS, R, MPlus

Languages English, Korean (Native fluency), Spanish (Limited professional proficiency)

Design: Adobe Photoshop, Illustrator, InDesign, After Effects, XD, Autodesk Fusion