YUE LUO

481 Weil Hall, 1949 Stadium Road, University of Florida, Gainesville, FL 32611
Cell: (734)-355-0933 | E-mail: yueluo@ufl.edu | Website: https://yueluo-ufl.github.io/

RESEARCH INTERESTS

Ergonomics & human factors, injury prevention, rehabilitation, aging health, digital human modeling, wearable technology, data analytics, occupational safety, inclusive design, human motion analysis

EDUCATION

University of Florida (UFL), Gainesville, FL
Ph.D., Industrial and Systems Engineering — December 2022 (Expected)
• *Advisor: Dr. Boyi Hu*

University of Michigan (UMICH), Ann Arbor, MI
M.S., Industrial and Operations Engineering — April 2019
• *Advisor: Dr. Clive D'Souza*
M.S., Biomedical Engineering — April 2017

Beijing Normal University, Zhuhai, Guangdong, China
B.S., Biotechnology — July 2015

PEER-REVIEWED PUBLICATIONS

Journal Articles

Published

1. **Luo, Y.**, Lu, X., Ahrentzen, S., & Hu, B. (2021). Impact of destination-based visual cues on gait characteristics among adults over 75 years old: A pilot study. *Gait & Posture, 87,* 110-116. https://doi.org/10.1016/j.gaitpost.2021.04.030

2. Lu, X., **Luo, Y.**, Hu, B., Park, N. K., & Ahrentzen, S. (2021). Testing of path-based visual cues on patterned carpet to assist older adults' gait in a continuing care retirement community. *Experimental Gerontology*, 111307. https://doi.org/10.1016/j.exger.2021.111307

3. **Luo, Y.**, Coppola, S. M., Dixon, P. C., Li, S., Dennerlein, J. T., & Hu, B. (2020). A database of human gait performance on irregular and uneven surfaces collected by wearable sensors. *Scientific data*, *7*(1), 1-9. https://doi.org/10.1038/s41597-020-0563-y

Under Review

1. **Luo, Y.**, Yang, F., Yerebakan, M. O., Zhang, J., & Hu, B. (under review). Load Carriage Modes and Limb Laterality Altered Gait During Obstacle Negotiation. *Journal of Motor Behavior.*

2. **Luo, Y.**, Grimaldi, N. S. *, Zheng, H., Giang, W. C., & Hu, B. (under review). Distraction from Smartphone Changed Pedestrians' Walking Behaviors in Open Areas. *Journal of Biomechanics.*

3. Chen, Y., **Luo, Y.**, & Hu, B. (under review). Towards Next Generation Cleaning Tools: Factors Affecting Cleaning Robot Usage and its Proxemic Behaviors Design. *Applied Ergonomics.*

4. Yerebakan, M. O., Li, S., **Luo, Y.**, Amaba, B., Swope, B., & Hu, B (under review). The effect of different occupational background noises on voice recognition accuracy. *Journal of Computing and Information Science in Engineering.*

In Preparation

1. **Luo, Y.**, Lu, X., Ahrentzen, S., & Hu, B. High fear of falling and more visible targets changed the joint kinematic of older adults. (In progress).

2. Chen, Y., **Luo, Y.**, Yang, C., Yerebakan, M. O., Hao S., Grimaldi, N. S. *, Li, S., Hayes, R., & Hu, B. Human Mobile Collaborative Robot Interaction with Rich Contextual Information. (In progress).

3. Grimaldi, N. S. *, **Luo, Y.**, Lu, X., Ahrentzen, S., & Hu, B. Effects of The Re-Envisioned Bedroom and Kitchen Layout Design on Human Motion: A Case Study. (In progress).

4. Lim, S., Lee. J., **Luo, Y.**, & D'Souza, C. Task Performance and Stepping Adaptation during Obstacle Clearance Task in Individuals with High Body Mass Index. (In progress).

Conference Proceedings

1. **Luo, Y.**, Lu, X., Grimaldi, N. S. *, Ahrentzen, S., & Hu, B. (2021). Effects of Light Conditions and Falls Concerns on Older Adults' Gait Characteristics: A Preliminary Study. In *Proceedings of the Human Factors and Ergonomics Society Annual Meeting* (Vol. 65, No. 1, pp. 1332–1336). Sage CA: Los Angeles, CA: SAGE Publications. https://doi.org/10.1177/1071181321651082

   - Won "Arnold Small Award"

2. **Luo, Y.**, Zheng, H., Chen, Y., Giang, W. C., & Hu, B. (2020). Influences of Smartphone Operation on Gait and Posture During Outdoor Walking Task. In *Proceedings of the Human Factors and Ergonomics Society Annual Meeting* (Vol. 64, No. 1, pp. 1723-1727). Sage CA: Los Angeles, CA: SAGE Publications. https://doi.org/10.1177/1071181320641418

3. **Luo, Y.**, Ouyang, S. *, Lockwood, C. *, Ferraz, M. D. *, & Hu, B. (2020). Publicly Accessible Wearable Motion Databases for Human Gait Studies. In *Proceedings of the Human Factors and Ergonomics Society Annual Meeting* (Vol. 64, No. 1, pp. 1718-1722). Sage CA: Los Angeles, CA: SAGE Publications. https://doi.org/10.1177/1071181320641417

4. Zheng, H., **Luo, Y.**, Hu, B., & Giang, W. C. (2020). A comparison of workload demands imposed by different types of distracted walking tasks and its effect on gait. In *Proceedings of the Human Factors and Ergonomics Society Annual Meeting* (Vol. 64, No. 1, pp. 1713-1717). Sage CA: Los Angeles, CA: SAGE Publications. https://doi.org/10.1177/1071181320641416

5. Lim, S., **Luo, Y.**, Ebert, S., Jones, M. L., Varban, O., & D'Souza, C. (2018). Preliminary Study of Obstacle Clearance and Compensatory Movements in Individuals with High Body Mass Index. In *Proceedings of the Human Factors and Ergonomics Society Annual Meeting* (Vol. 62, No. 1, pp. 388-392). Sage CA: Los Angeles, CA: SAGE Publications. https://doi.org/10.1177/1541931218621089

PRESENTATIONS

Conference Presentations

1. **Luo, Y.**, Lu, X., Grimaldi, N. S. *, Ahrentzen, S, & Hu, B. (2021). Effects of Light Conditions and Falls Concerns on Older Adults' Gait Characteristics. Presented at the *65th Annual Meeting of the Human Factors and Ergonomics Society (HFES). Virtual Event.*

2. **Luo, Y.**, Zheng, H., Chen, Y., Giang, W. C., & Hu, B. (2020). Influences of Smartphone Operation on Gait and Posture During Outdoor Walking Task. Presented at the *64th Annual Meeting of the Human Factors and Ergonomics Society (HFES). Virtual Event.*

3. **Luo, Y.**, Ouyang, S. *, Lockwood, C. *, Ferraz, M. D. *, & Hu, B. (2020). Publicly Accessible Wearable Motion Databases for Human Gait Studies. Presented at the *64th Annual Meeting of the Human Factors and Ergonomics Society (HFES). Virtual Event.*

Poster Presentations

1. **Luo, Y.**, Chen, Y., Zheng, H., Giang, W. C., & Hu, B. (2021). Distraction and student safety: college pedestrians' walking strategies altered when interacting with smartphones. Poster presented at the *5th Annual Graduate Research Symposium,* University of Florida, Gainesville, FL.

2. **Luo, Y.** & Hu, B. (2021). The Role of Phone Use on Pedestrian Safety: How Reading, Texting, and Gaming Affect Walking Behaviors. Poster presented at the *4th Annual Southeast Regional Research Symposium (SERRS),* Virtual Event.

3. **Luo, Y.**, Zheng, H., Chen, Y., Giang, W. C., & Hu, B. (2020). Effects of Smartphone Operation on Pedestrians' Gait Performance: An Outdoor Study. Poster presented at the *44th Annual Meeting of the American Society of Biomechanics (ASB),* Virtual Event.

4. **Luo, Y.**, Lim, S., Futerman, S., Grider, J., Ebert, S., Jones., M., Varban, O., & D'Souza, C. (2018). Dynamic Balance and Measures of Obstacle Clearance Performance in Individuals with High Body Mass Index. Poster presented at the *Education and Research Center (ERC) Regional Research Symposium*, the University of Illinois at Chicago, Chicago, IL.

5. Lim, S., Ebert, S., Malik, L., **Luo, Y.**, Futerman, S., Lin, S., D'Souza, C., Jones, M., & Varban, O. (2017). Novel Methods to Track Changes in Health and Function of Individuals with High Body Mass Index (BMI). Poster presented at the *MCubed Symposium 2017*, University of Michigan, Ann Arbor, MI.

Invited Presentations

1. Lu, X., **Luo, Y.**, Hu, B., & Ahrentzen, S. (2021). The Effect of Path-Based and Destination-Based Visual Cues on Residents' Gait Characteristics. Presented at Oak Hammock Retirement Community at the University of Florida, Gainesville, FL, May 2021.

* Student authors

HONORS AND AWARDS

- UFL Certificates of Outstanding Achievement	2021
- HFES ATG Arnold Small Award	2021
- HFES Council of Technical Groups Travel Award for First Year Graduate Students	2020
- UM Rackham Graduate School Travel Grant Award	2018
- Second Prize Scholarship of College of Engineering Technology (10%)	2014
- Second Prize Scholarship of College of Engineering Technology (10%)	2013
- Internal Auditor Qualification Certificate	2013
- Grand Prize Professional Scholarship of Beijing Normal University, Zhuhai (5%)	2012
- Excellent Leader of Liyun Youth Volunteers Association, College of Engineering branch	2011

RESEARCH AND WORK EXPERIENCE

University of Florida (UFL), Gainesville, FL

Human-Systems Engineering Laboratory August 2019 - Present

Graduate Research Assistant

- Faculty Advisor: Boyi Hu, Ph.D.
- Project: "Project Re-envision VR Simulation Testing"
- Project: "Exploring the Effects of Innovative Lighting Interventions on Older Adults' Movement Behaviors and Reducing Fear of Falling"
- Project: "Influences of Smartphones and Smartwatches on Pedestrians' Balance Control"
- Project: "Effects of Autonomous Mobile Robots on Human Co-workers' Satisfaction and Performance in Grocery Stores"

- Project: "Risk Prediction Modeling for 90-Day Readmissions Following Primary Total Hip (THA) and Total Knee Arthroplasty (TKA) Hospitalization"

University of Michigan (UMICH), Ann Arbor, MI
Inclusive Mobility Research Laboratory April 2017 - May 2019
Graduate Student Research Assistant
- Faculty Advisor: Clive D'Souza, Ph.D.
- Project: "Novel Methods to Track Changes in Health and Function, Before and After Adult Bariatric Surgery" (Funding: MCubed program from University of Michigan)
- Project: "HUMOSIM Force-Based Posturing in Manual Assembly Work"
- Project: "Sensor Based Postural Demand Profiles for Cumulative Physical Workload Estimation"
- Project: "Instrumentation for Measuring Supine Spine Rotations"

University of Michigan (UMICH), Ann Arbor, MI
Yali Dou's Laboratory September 2016 - April 2017
Graduate Student Research Assistant
- Faculty Advisor: Yali Dou, Ph.D.
- Project: "Identification of Non-Histone Substrates of Mixed-lineage Leukemia Protein-1 (MLL1)"

Jiangxi Institute of Materia Medica, Nanchang, China
Research Intern September 2014 - October 2014
- Faculty Advisor: Junming Zhang
- Project: "Evaluation of the Effects of Dalitong Granule (Medicine) to Isolated Intestine of Guinea Pigs"

Zhejiang University, Hangzhou, China
Enyin Lai's Laboratory July 2014 - August 2014
Undergraduate Student Research Assistant
- Faculty Advisor: Enyin Lai, Ph.D.
- Project: "The Establishment of Renal Ischemia Reperfusion Injury Model"

TEACHING EXPERIENCE

Guest Lecturer November 2021
University of Florida, Department of Industrial and Systems Engineering
EIN 6905: Occupational Safety Engineering

Guest Lecturer May 2020
Abraham Lincoln Middle School
Outreach Event: Ants and Robots

Guest Lecturer October 2019
University of Florida, Department of Industrial and Systems Engineering
EIN4360C: Facilities Planning and Work Design

Module Instructor March 2018 & 2019
University of Michigan, Department of Industrial and Operations Engineering
IOE 591: Ergonomics Research Methods Laboratory

MENTORING EXPERIENCE

University of Florida (UFL), Gainesville, FL
Watts, Grace, ME, Watts, Undergraduate Student Research Assistant (10/2021 - present)
Grimaldi, Nicolas S, BME, Undergraduate Student Research Assistant (8/2020 - present)

Lockwood, Caroline G, ISE, Undergraduate Student Research Assistant (8/2019 - 12/2020)
Ouyang, Sai, ISE, Graduate Student Research Assistant (8/2019 - 06/2020)
Ferraz, Maria D, ISE, Undergraduate Student Research Assistant (8/2019 - 05/2020)

University of Michigan (UMICH), Ann Arbor, MI
Keeley, Jordan, IOE, Undergraduate Student Research Assistant (2/2018 - 4/2019)
Futerman, Sidnie, IOE, Undergraduate Student Research Assistant (9/2017 - 4/2018)

PROFESSIONAL DEVELOPMENT

- Responsible Conduct of Research Certificate program

University of Florida (UFL), Gainesville, FL

Selected to attend a 3-month seminar to gain an understanding of the responsible conduct of research.

PROFESSIONAL AFFILIATION AND LEADERSHIP

- Member, Human Factors and Ergonomics Society (HFES) 2018 - Present
- Member, Institute of Electrical and Electronics Engineers (IEEE) 2020 - Present
- Newsletter editor, HFES Aging Technical Groups 2021 - 2022

PROFESSIONAL SERVICE

- Reviewer, IEEE Transactions on Human-Machine Systems 2020 - Present
- Reviewer, IEEE International Conference on Systems, Man, and Cybernetics 2021
- Reviewer, Proceedings of the 65th Annual Meeting of the Human Factors and Ergonomics Society 2021
- Reviewer, Proceedings of the 64th Annual Meeting of the Human Factors and Ergonomics Society 2020
- Student Volunteer, HFES Annual Meeting 2021

PROFESSIONAL SKILLS

- Programming Language: Python, R
- Operating System: Windows, Mac, Ubuntu
- Software: MATLAB, SPSS, Minitab, R studio, LabVIEW, Gazebo, 3DSSPP
- Equipment: Motion capture system (Xsens, Biostamp, APDM, Vicon, Qualisys)
  Electromyography system (Delsys)
  Force plates (ATMI)
  Robot system (Fetch Freight base)
- Language: Chinese (Mandarin), English