JIASHENG LI

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EDUCATION

University of Maryland, College Park, MD, USA   Aug 2021 - Present
Ph.D. in Computer Science
– Research interests: robotics, wearable devices, accessibility, human-robot interaction(HRI)
– Advisor: Dr. Huaishu Peng

University of Maryland, College Park, MD, USA   Jan 2020 - Aug 2021
M.S. in Telecommunication

Virginia Tech, VA, USA   Aug 2015 - May 2019
B.S. in Electrical Engineering

AWARDS & HONORS

HCIL Maryland Way Award for Reserach Excellence	May 2024
Best Paper Honorable Mention (CHI 2023)	April 2023
Dean's Fellowship, University of Maryland, College Park ($5,000)	2021, 2022

RESEARCH EXPERIENCE

Small Artifacts Lab, University of Maryland   College Park, MD USA
Graduate Research Assistant (Advisors: **Dr. Huaishu, Peng**)   *Sept 2020 - Present*

- Designing and implementing active embodied AI agent that utilize wearable devices and on-body robots to provide real-time haptic feedback and multi-modal interactions for users in creating immersive virtual experiences.
- Developing user friendly assistive devices, such as personal robots and tangible user interfaces that aims to improve interaction experience for users with visual impairment in the digital world.
- Conducting user-orientated studies to explore users' experience in using personal robots to complete daily tasks.
- Exploring and evaluating the users' strategies in interacting with robots and controls (human-robot interaction).

PUBLICATIONS & INVITED TALKS

Full Papers

[P.1] **Jiasheng Li**, Zeyu Yan, Zining Zhang, Yuhang Zhao, and Huaishu Peng. 2025. Stretch or Vibrate? Rendering Spatial Information of Static and Moving Objects in VR via Haptic Feedback for Blind People. *The 32nd IEEE Conference on Virtual Reality and 3D User Interfaces* (IEEE VR '25). [Under Review]

[P.2] **Jiasheng Li**, Zining Zhang, Zeyu Yan, Ge Gao, and Huaishu Peng. 2025. TangibleSite: Toward Accessible Webpage Design for Blind Users. *In Proceedings of the 2025 CHI Conference on Human Factors in Computing Systems* (ACM CHI '25). [Under Review]

[P.3] Zeyu Yan, **Jiasheng Li**, Zining Zhang, and Huaishu Peng. 2025. PCB Renewal: Iterative Reuse of PCB Substrates for Sustainable Electronic Prototyping. *In Proceedings of the 2025 CHI Conference on Human Factors in Computing Systems* (ACM CHI '25). [Under Review]

[P.4] Anup Sathya, **Jiasheng Li**, Jonathan David Martin, Adriane Fang, Bill Kules, Zeyu Yan, Huaishu Peng. 2024. Cybernetic Marionette: Channeling Audience Agency Through a Robot in a Live Dancer-Robot Duet. *In Proceedings of the 2025 CHI Conference on Human Factors in Computing Systems* (ACM CHI '25). [Under Review]

[P.5] Zeyu Yan, **Jiasheng Li**, Zining Zhang, and Huaishu Peng. 2024. SolderlessPCB: Reusing Electronic Components in PCB Prototyping through Detachable 3D Printed Housings. *In Proceedings of the 2024 CHI Conference on Human Factors in Computing Systems* (ACM CHI '24). [link]

[P.6] Zining Zhang, **Jiasheng Li**, Zeyu Yan, and Huaishu Peng. 2024. JetUnit: Rendering Diverse Force Feedback in Virtual Reality Using Water Jets. *In Proceedings of the 37th Annual ACM Symposium on User Interface Software and Technology* (ACM UIST '24).

[P.7] **Jiasheng Li**, Zeyu Yan, Arush Shah, Jonathan Lazar, and Huaishu Peng. 2023. Toucha11y: Making Inaccessible Public Touchscreens Accessible. *In Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems* (ACM CHI '23). [Best paper honorable mention] [link]

[P.8] Niall L Williams, **Jiasheng Li**, Ming C Lin. 2023. A Framework for Active Haptic Guidance Using Robotic Haptic Proxies. *IEEE International Conference on Robotics and Automation* (IEEE ICRA '23). [link]

[P.9] **Jiasheng Li**, Zeyu Yan, Ebrima Haddy Jarjue, Ashrith Shetty, and Huaishu Peng. 2022. TangibleGrid: Tangible Web Layout Design for Blind Users. *In Proceedings of the 35th Annual ACM Symposium on User Interface Software and Technology* (ACM UIST '22). [link]

[P.10] Anup Sathya, **Jiasheng Li**, Tauhidur Rahman, Ge Gao, and Huaishu Peng. 2022. Calico: Relocatable On-cloth Wearables with Fast, Reliable, and Precise Locomotion. *Proc. ACM Interact. Mob. Wearable Ubiquitous Technol* (ACM IMWUT 2022).[link]

[P.11] Xiaojun Quan, Ming Gao, Ping Cheng, **Jiasheng Li**. 2015. An Experimental Investigation of Pool Boiling Heat Transfer on Smooth/Rib Surfaces Under an Electric Field, *International Journal of Heat and Mass Transfer* [link]

Demos and Posters

[D.1] **Jiasheng Li**, Zeyu Yan, Ebrima Haddy Jarjue, Ashrith Shetty, and Huaishu Peng. 2022. Demonstration of TangibleGrid: a Tangible Web Layout Design Tool for Blind Users. *In Adjunct Proceedings of the 35th Annual ACM Symposium on User Interface Software and Technology* (ACM UIST '22 Adjunct). [link]

[D.2] Zining Zhang, **Jiasheng Li**, Zeyu Yan, and Huaishu Peng. 2024. Demonstration of JetUnit: Rendering Diverse Force Feedback in Virtual Reality Using Water Jets. *In Proceedings of the 37th Annual ACM Symposium on User Interface Software and Technology* (ACM UIST '22 Adjunct). (ACM UIST '24 Adjunct). [link]

TEACHING EXPERIENCE

Graduate Teaching Assistant (Head TA) — Aug 2021 - Present
University of Maryland, College Park — *College Park, MD*

- **TA duties:** Leading other TAs, held office hours, designed programming assignments, and graded assignments and exams.
- **Courses TA'd for:** Javascript Programming & Web Application Development

Graduate Teaching Assistant — Aug 2020 - Dec 2020
University of Maryland, College Park — *College Park, MD*

- **TA duties:** Held office hours, graded assignments and exams.
- **Courses TA'd for:** Decision Support Methods for Telecommunication Managers

Laboratory Assistant — Aug 2019 - Nov 2019
Virginia Tech, Blacksburg — *Blacksburg, VA*

- Manage, design, and implement lab equipment, such as printed circuit boards (PCBs) and Arduino.
- Supervisor: Dr. Steve Southward, Associate Professor.

MEDIA COVERAGE

- *Calico Robot Assistant: The Tiny, On-Cloth Wearable Device That Can Zip Around Your Clothing*
  - **The Science Times**
  Link: https://www.sciencetimes.com/articles/44407/20230620/calico-robot-assistant-tiny-cloth-...

- *Graduate Student's Innovative Technology for the Visually Impaired Honored at CHI 2023 Conference*
  - **UMD**
  Link: https://www.cs.umd.edu/article/2023/06/umd-cs-graduate-student's-innovative-technology-...

- *A Wearable Robotic Assistant That's All Over You*
  - **IEEE Spectrum**
  Link: https://spectrum.ieee.org/wearable-robotics

- *THE CALICO WEARABLE RIDES THE RAILS*
  - **Hackday**
  Link: https://hackaday.com/2022/09/14/the-calico-wearable-rides-the-rails/

- *System Breaks Down Barriers for Blind Web Designers*
  - **NewsWires, UMD**
  Link: https:https://www.einnews.com/pr_news/597647252/system-breaks-down-barriers-for-blind-...
  Link: https://today.umd.edu/system-breaks-down-barriers-for-blind-web-designers

PROFESSIONAL SERVICES & COMMUNITY INVOLVEMENT

Peer Reviewing	CHI Conference on Human Factors in Computing Systems, ACM Symposium on User Interface Software and Technology (UIST), ACM Interaction Design and Children (IDC) Conference, ACM Designing Interactive Systems (DIS)	2023 - Present
Conference Volunteer	CHI Conference on Human Factors in Computing Systems	2023
University of Maryland	Graduate admissions application reviewer	2022

MENTORING EXPERIENCE

Undergraduate Students	Matthew Wong (University of Maryland, College Park)	2023 - present