

Liang He

Incoming Assistant Professor, Department of Computer Science

Erik Jonsson School of Engineering and Computer Science

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Research Interests

My research interests lie in the field of human-computer interaction (HCI), including digital fabrication, tactile and haptic interfaces, tangible interaction, accessibility, and physical intelligence. I develop enabling tools, techniques, and devices that mediate and enhance human interaction with physical and virtual objects and environments. My research focuses on

- developing **computational design tools and techniques** to augment physical properties of objects with interactivity to enhance hand- and body-based interactions (e.g., haptic interfaces, wearables, assistive devices).
- building **AI-assisted intelligent systems and workflows** to empower end-users with minimal expertise in specialized tasks (e.g., 3D modeling, circuit prototyping, learning).
- exploring **electro-mechanical and material-based approaches** to enable the integration of advanced physical intelligence in objects and environments for contextualized user needs (e.g., medical intervention, sports training, human-robot interaction).

Employment

8/2025– **Assistant Professor (tenure-track)**

University of Texas at Dallas, Department of Computer Science

Director of [Design & Engineering for Making \(DE4M\) Lab](#)

8/2022–5/2025 **Assistant Professor (tenure-track)**

Purdue University, Department of Computer Graphics Technology

10/2020–12/2020 **Research Intern with Kris J. Erickson and Rafael 'Tico' Ballagas**

3D Print Lab, HP Labs, Palo Alto, CA

6/2019–9/2019 **Research Intern with Rafael 'Tico' Ballagas**

Artificial Intelligence & Emerge Computing Lab, HP Labs, Palo Alto, CA

6/2016–8/2016 **Research Intern with Rob DeLine and Saleema Amershi**

Microsoft Research, Redmond, WA

5/2014–8/2014 **Research Intern** with Ellen Yi-Luen Do and Beryl Plimmer
Keio-NUS CUTE Center, Singapore

Education

- 8/2022 **Ph.D., Computer Science & Engineering**, *University of Washington, Seattle*
Dissertation: Fabricating Kinetic Objects with 3D Printable Spring-Based Mechanisms for Interactivity
Advisor: Jon E. Froehlich
Committee members: Jennifer Mankoff, Adriana Schulz, and Nadya Peek
(Transferred from the University of Maryland, College Park to UW in 2017)
- 5/2015 **M.S., Computational Design**, *Carnegie Mellon University, Pittsburgh*
Thesis: SqueezaPulse - Adding Interactive Input Using Passive Pulses of Air
- 5/2013 **M.S., Computer Science and Technology**, *University of Chinese Academy of Sciences*
Thesis: A Tangible Approach for Storytelling
- 5/2010 **B.Eng, Software Engineering**, *Beihang University (BUAA)*

Publications

My students and myself are underlined.

Conference Papers

- 2025 [C.12] **“I Want to Use Technology to Help Farmers in the Future”: Enhancing Children’s Understanding of Farming through Tangible User Interfaces and Embodied Interaction.** Yili Wen, Jiaxin Wang, Hongni Ye, Liang He, Min Fan, Xin Tong. In *Proceedings of the 24th Annual ACM Interaction Design and Children Conference (IDC ’25)*.
- 2024 [C.11] **MobiPrint: A Mobile 3D Printer for Environment-Scale Design and Fabrication.** Daniel Campos Zamora, Liang He, and Jon E. Froehlich. In *Proceedings of the 37th Annual ACM Symposium on User Interface Software and Technology (UIST ’24)*.
- 2023 [C.10] **3D Printing Magnetophoretic Display.** Zeyu Yan, Hsuanling Lee, Liang He, and Huaishu Peng. In *Proceedings of the 36th Annual ACM Symposium on User Interface Software and Technology (UIST ’23)*.
- 2022 [C.9] **Kinergy: Creating 3D Printable Motion using Embedded Kinetic Energy.** Liang He, Xia Su, Huaishu Peng, Jeffrey I. Lipton, and Jon E. Froehlich. In *Proceedings of the 35th Annual ACM Symposium on User Interface Software and Technology (UIST ’22)*.

- [C.8] **FlexHaptics: A Design Method for Haptic Inputs Using Flat Compliant Structures.** Hongnan Lin, [Liang He](#), Fangli Song, Yifan Li, Tingyu Chen, Clement Zheng, Wei Wang, and HyunJoo Oh. In *Proceedings of the 40th Annual ACM Conference on Human Factor in Computing Systems (CHI '22)*.
- 2021 [C.7] **HulaMove: Using Commodity IMU for Waist Interaction.** Xuhai Xu, Jiahao Li, Tianyi Yuan, [Liang He](#), Xin Liu, Yukang Yan, Yuntao Wang, Yuanchun Shi, Jennifer Mankoff, and Anind K. Dey. In *Proceedings of the 39th Annual ACM Conference on Human Factors in Computing Systems (CHI '21)*.
- 2019 [C.6] **Ondulé: Designing and Controlling 3D Printable Springs.** [Liang He](#), Huaishu Peng, Michelle Lin, Ravikanth Konjeti, François Guimbretière, and Jon E. Froehlich. In *Proceedings of the 32nd Annual ACM Symposium on User Interface Software and Technology (UIST '19)*.
- 2017 [C.5]  **MakerWear: A Tangible Approach to Interactive Wearable Creation for Children.** Majeed Kazemitabaar, Jason McPeak, Alexander Jiao, [Liang He](#), Thomas Outing, and Jon E. Froehlich. In *Proceedings of the 35th annual ACM conference on Human factors in computing systems (CHI '17)*.
Best Paper Award [Top 1%]
- [C.4] **SqueezaPulse: Adding Interactive Input to Fabricated Objects Using Corrugated Tubes and Air Pulses.** [Liang He](#), Gierad Laput, Eric Brockmeyer, and Jon E. Froehlich. In *Proceedings of the ACM symposium on tangible and embodied interaction (TEI '17)*.
- 2015 [C.3] **PneuHaptic: Delivering Haptic Cues with a Pneumatic Armband.** [Liang He](#), Cheng Xu, Ding Xu, and Ryan Brill. In *Proceedings of the 19th International Symposium on Wearable Computers (ISWC '15)*.
- [C.2] **CozyMaps: Real-time Collaboration on a Shared Map with Multiple Displays.** Kelvin Cheng, [Liang He](#), Xiaojun Meng, David A. Shamma, Dung Nguyen, and Anbarasan Thangapalam. In *Proceedings of the 17th International Conference on Human-Computer Interaction with Mobile Devices and Services (MobileHCI'15)*.
- [C.1]  **New Interaction Tools for Preserving an Old Language.** Beryl Plimmer, [Liang He](#), Tariq Zaman, Kasun Karunanayaka, Alvin W. Yeo, Garen Jengan, Rachel Blagojevic, and Ellen Yi-Luen Do. In *Proceedings of the 33rd annual ACM conference on Human factors in computing systems (CHI '15)*.
Honorable Mentions Award [Top 3%]

Journal Papers

- 2021 [J.2] **ModElec: A Design Tool for Prototyping Physical Computing Devices Using Conductive 3D Printing.** [Liang He](#), Jarrid A. Wittkopf, Ji Won Jun, Kris Erickson, and Rafael 'Tico' Ballagas. In *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT)* 5, no. 4 (2021): 1-20.

- 2014 [J.1] **StoryCube: Supporting Children's Storytelling with a Tangible Tool.** Danli Wang, [Liang He](#), and Keqin Dou. *The Journal of Supercomputing*, Volume 70 Issue 1, Pages 269-283. Springer. 2014.

Dissertation & Doctoral Position Paper

- 2022 [Diss.] **Fabricating Kinetic Objects with 3D Printable Spring-Based Mechanisms for Interactivity.** [Liang He](#). University of Washington, 2022.
- 2020 [DC.1] **Designing, Controlling, and Fabricating In-Place Augmented Structures.** [Liang He](#). In *Adjunct Proceedings of the 33rd Annual ACM Symposium on User Interface Software and Technology (UIST '20 Doctoral Symposium)*. Committee: Michel Beaudouin-Lafon, Ranjitha Kumar, Pedro Lopes, Camille Moussette, Ken Hinckley

Extended Abstracts/Poster & Workshop Papers

- 2024 [P.11] **Towards Rapid Fabrication of Custom Tactile Surface Indicators for Indoor Navigation.** Daniel Campos Zamora, [Liang He](#), and Jon E. Froehlich. In *Proceedings of the 26th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '24)*.
- [P.10]  **Fluxable: A Tool for Making 3D Printable Sensors and Actuators.** [Hsuanling Lee](#), Yujie Shan, Huachao Mao, and [Liang He](#). In *Adjunct Proceedings of the 37th Annual ACM Symposium on User Interface Software and Technology (UIST Adjunct '24)*.
Best Poster Award [Top 1%]
- [P.9] **3D Printing Shape-Changing Devices with Inductive Sensing.** [Hsuanling Lee](#) and [Liang He](#). In *ACM SIGGRAPH 2024 Posters (SIGGRAPH '24)*.
- 2023 [P.8] **A Multi-modal Toolkit to Support DIY Assistive Technology Creation for Blind and Low Vision People.** [Liwen He](#), [Yifan Li](#), Mingming Fan, [Liang He](#), and Yuhang Zhao. In *Adjunct Proceedings of the 36th Annual ACM Symposium on User Interface Software and Technology (UIST '23 Adjunct)*.
- [P.7] **Understanding the Experiences, Challenges, and Needs of Dementia Caregivers in the Indian Subcontinent.** [Srishti Shekhar Agrawal](#), [Shrey Panchal](#), and [Liang He](#). In *the 25th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '23)*.
- 2022 [D.1] **sPrintr: Towards In-Situ Personal Fabrication using a Mobile 3D Printer.** Daniel Campos Zamora, [Liang He](#), Yueqian Zhang, Xuhai Xu, Jennifer Mankoff, and Jon E. Froehlich. In *Symposium on Computational Fabrication (SCF '22)*.
- [SIG.1] **SIG: Towards More Personal Health Sensing.** Junyi Zhu, [Liang He](#), Jun Nishida, Hamid Ghaednia, Cindy Hsin-Liu Kao, Jon E. Froehlich, Edward Jay Wang, and

Stefanie Mueller. In *Extended Abstracts of the 2022 CHI Conference on Human Factors in Computing Systems (CHI EA '22)*.

- 2020 [EA.3] **PneuFetch: Supporting Blind and Visually Impaired People to Fetch Nearby Objects via Light Haptic Cues.** [Liang He](#), Ruolin Wang, Xuhai Xu. In *Proceedings of CHI '20 Extended Abstracts on Human Factors in Computing Systems (CHI EA '20)*.
- 2019 [P.6] **A Multi-Modal Approach for Blind and Visually Impaired Developers to Edit Webpage Designs.** Venkatesh Potluri, [Liang He](#), Christine Chen, Jon E. Froehlich, and Jennifer Mankoff. In *the 21st International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '19)*.
- 2017 [P.5] **TacTILE: A Preliminary Toolchain for Creating Accessible Graphics with 3D-Printed Overlays and Auditory Annotations.** [Liang He](#), Zijian Wan, Leah Findlater, and Jon E. Froehlich. In *Poster Proceedings of the 19th International ACM SIGACCESS Conference on Computers & Accessibility (ASSETS '17)*.
- [P.4] **Designing 3D-Printed Deformation Behaviors Using Spring-Based Structures: An Initial Investigation.** [Liang He](#), Huaishu Peng, Joshua Land, Mark D. Fuge, and Jon E. Froehlich. In *Adjunct Proceedings of the 30th Annual ACM Symposium on User Interface Software and Technology (UIST '17)*.
- [P.3] **Early Exploration of Deformable Interactive Designs with 3D-Printed Springs.** [Liang He](#), Joshua Land, Huaishu Peng, Mark D. Fuge, and Jon E. Froehlich. In *Proceedings of the 1st Annual ACM Symposium on Computational Fabrication (SCF '17)*.
- 2016 [EA.2]  **ReWear: Early Explorations of a Modular Wearable Construction Kit for Young Children.** Majeed Kazemitabaar, [Liang He](#), Katie Wang, Chloe Aloimonos, Tony Cheng, and Jon E. Froehlich. In *Proceedings of CHI '16 Extended Abstracts on Human Factors in Computing Systems (CHI EA '16)*.
Best Poster Award [Top 1%]
- [EA.1] **VRSurus: Enhancing Interactivity and Tangibility of Puppets in Virtual Reality.** Ruofei Du and [Liang He](#). In *Proceedings of CHI '16 Extended Abstracts on Human Factors in Computing Systems (CHI EA '16)*.
- 2012 [P.2] **E-Block: A Tangible Programming Tool for Children.** Danli Wang, Yang Zhang, Tianyuan Gu, Liang He, and Hongan Wang. In *Adjunct Proceedings of the 25th Annual ACM Symposium on User Interface Software and Technology (UIST '12)*.
- [P.1] **TempoString: A Tangible Tool for Children's Music Creation.** [Liang He](#), Guang Li, Yang Zhang, Danli Wang, and Hongan Wang. In *Proceedings of the 14th International Conference on Ubiquitous Computing (UbiComp '12)*.

Funding

- 2024 **Equitable and Personalized Treatment of Edema Through Wearable Textiles and Machine Learning-Based Pain Assessment.** Liang He (PI) and Sooyeon Jeong, \$192,000. *Institute for Physical Artificial Intelligence (IPAI), Purdue University.*
- 2023 **Exploratory SAIL Fund. Hacking, Designing, and Making.** Liang He (PI), \$2,667. *Purdue University.*
- 2023 **Assistive Haptic and Actuated Interface for People with Disability using Modular, Personalized On-body Robots.** Liang He (PI) and Huachao Mao, \$9,538. *Holistic Safety and Security (HSS) Research Impact Area, Purdue University.*

Honors and Awards

- 2025 **Special Recognition for Paper Reviews, UIST '25**
- 2024 **UIST 2024 Jury Best Poster Award**
- 2024 **IPAI Postdoctoral Research Award, Purdue University**
- 2024 **Purdue Polytechnic Institute Faculty Research Award, Purdue University**
- 2024 **Special Recognitions for Paper Reviews, UIST '24, CHI '24, DIS '24**
- 2023 **Special Recognitions for Paper Reviews, UIST '23, DIS '23, IMWUT, CHI '23**
- 2022 **Special Recognition for Paper Reviews, UIST '22, CHI '22**
- 2021 **Bob Bandes Memorial Honorable Mention Student Teaching Award (top 1%), UW**
- 2021 **Special Recognition for Paper Reviews, UIST '21**
- 2020 **Special Recognition for Paper Reviews, UIST '20, CHI '20**
- 2019 **Winner, CHI '19 SV t-shirt design contest**
- 2018 **Finalist, Amazon Catalyst Award**
- 2017 **Best Paper Award (top 1%), CHI '17**
- 2016 **Conference Travel Funding, Department of Computer Science, University of Maryland**
- 2016 **Best Late-Breaking Work Paper Award, CHI '16**
- 2016 **Dean's fellowship, Department of Computer Science, University of Maryland**
- 2015 **Dean's fellowship, Department of Computer Science, University of Maryland**
- 2015 **Paper Honorable Mentions Award (top 3%), CHI '15**
- 2014 **Conference Travel Funding, School of Architecture, Carnegie Mellon University**
- 2014 **Department Scholarship, School of Architecture, Carnegie Mellon University**
- 2014 **Most Creative Award, UIST '14 Student Innovation Contest**
- 2014 **Winner, CHI '14 SV t-shirt design contest**

- 2013 **Department Scholarship**, School of Architecture, Carnegie Mellon University
- 2012 **Winner**, G-Startup Seed Stage, Global Mobile Internet Conference '12
- 2011 **Winner**, Baidu User Experience contest
- 2011 **Follow-up**, Software Design, Microsoft Imagine Cup Local Final
- 2009 **China National Scholarship (Top 1% nationwide)**, China

Patent/Software Copyright

- 2013 [PA.1] **A Method and System for Children's Tangible Storytelling.**
Patent number: 2013100129910
- 2010 [SC.1] **InkSound: A Pen-based System for Chinese Traditional Painting.**

Invited Talks

- 2025 **Creative Making through Physical Intelligence.** HKUST (Guangzhou).
- 2025 **Creative Making through Physical Intelligence.** UT Dallas.
- 2025 **Creative Making through Physical Intelligence.** UW-Madison.
- 2023 **Beyond Shape: Creating Interactive 3D Printable Objects.** UW-Madison.
Beyond Shape: Creating Interactive 3D Printable Objects. Purdue University.
Beyond Shape: Creating Interactive 3D Printable Objects. Tsinghua University, virtual.
Beyond Shape: Fabricating Kinetic Objects for Interactivity. Zhejiang Univ., China.
Beyond Shape: Fabricating Kinetic Objects for Interactivity. Duke Kunshan, China.
Beyond Shape: Fabricating Kinetic Objects for Interactivity. HCI Seminar, CSAIL, MIT.
- 2022 **Beyond Shape.** Georgia Tech.
Beyond Shape. Hasso Plattner Institute, Germany.
- 2021 **Beyond Shape.** HCIL Brown-Bag Lunch. University of Maryland, College Park.
ModElec. CSE Colloquium. University of Washington.
Beyond Shape. HCI seminar invited by Ryo Suzuki. University of Calgary. Virtual.
Kinetic Fab Research Overview. Lightning Talk. IWHEC 2021 affiliated forum. Virtual.
- 2020 **3D Printing Electronics.** HP 3D Print Lab.
Designing, Controlling, and Fabricating In-Place Augmented Structures. UIST 2020 Doctoral Symposium. Virtual.
Designing and Controlling On-Demand 3D Printable Structures to Support the Fabrication for Interactivity. DUB Doctoral Colloquium, UW, Seattle.

- 2019 **Ondulé.** *Institute of Software, Chinese Academy of Sciences (ISCAS), China.*
Ondulé. *HCI Lunch Talk. Stanford, CA.*
Making 3D-Printed Objects for Interactivity. *Lightning Talk. UW CSE/MSR Summer Institute – Future of Fabrication, Blaine, WA.*
- 2018 **Modeling and Fabricating Interactivity and Creativity with Object Properties.** *UW CSE Colloquia – Computational Fabrication. Seattle.*
Fabricating High-Level Design Specifications with Low-Level Object Properties. *Industry Affiliates Research Day. UW. Seattle.*
- 2016 **SqueezaPulse.** *Tech+Design: Interaction Design for a Purpose. UMD, College Park, MD.*
SqueezaPulse. *HCIL's 33rd Annual Symposium. UMD, College Park, MD.*

Guest Lectures/Workshops

- 2024 [L.7] **Intro to Digital Fabrication.** *EECS 493. Department of Computer Science & Engineering. University of Michigan.*
- [L.6] **Democratizing Interactivity Prototyping with Digital Fabrication.** *Introduction to HCI, Department of Computer Science, University of Rochester.*
- [L.5] **Prototyping Interactivity from Physical to Virtual to Physical.** *Introduction to HCI (CISCX82), Department of Computer Science, Univ. of Delaware.*
- 2022 [L.4] **Prototyping, Prototyping, Prototyping.** *Introduction to HCI (CISCX87), Department of Computer Science, Univ. of Delaware.*
- [L.3] **Build for Access.** *Introduction to Assistive Technology and Robotics (CNIT 581 AST). Department of Computer Information Technology, Purdue University.*
- [W.4] **CSNext Workshop.** *Mentoring four students from underrepresented groups. Computer Science & Engineering, UW.*
- 2020 [W.3] **3D Printed Electronics with ModElec.** *HP Labs.*
- 2019 [L.2] **Heuristic Evaluation.** *CSE 440A: Introduction to HCI. CSE, UW.*
- 2018 [W.2] **Video Making.** *CSE SkillShare Workshop, UW.*
- [W.1] **3D Modeling with Fusion 360.** *CSE 590A: Ubiquitous Computing, CSE, UW.*
- [L.1] **Laser Cutting.** *HCID 521, Human-Computer Interaction & Design, UW.*

Teaching

- 2025 [TE.19] **CGT581: Interactive Prototyping & Digital Fabrication.** *CGT, Purdue. Instructor, 7 enrolled grad students*
- 2025 [TE.18] **CGT532: UX Design Graduate Studio (Cross-Channel).** *CGT, Purdue. Instructor,*

13 enrolled grad students, studio-based course

- 2024 [TE.17] **CGT27108: UX Design Learning Studio - Screen.** CGT, Purdue.
Instructor, taught 49 undergrad students, studio-based course
- 2024 [TE.16] **CGT512: Foundational Readings of UX Design.** CGT, Purdue.
Instructor, taught 14 grad students
- 2024 [TE.15] **CGT27208: UX Design Learning Studio (Cross-Channel).** CGT, Purdue.
Instructor, taught 46 undergrad students, studio-based course
- 2024 [TE.14] **CGT532: UX Design Graduate Studio (Cross-Channel).** CGT, Purdue.
Instructor, taught 30 grad students, studio-based course
- 2023 [TE.13] **CGT512: Foundational Readings of UX Design.** CGT, Purdue.
Instructor, taught 41 grad students
- 2023 [TE.12] **CGT532: UX Design Graduate Studio (Cross-Channel).** CGT, Purdue.
Instructor, taught 28 grad students, studio-based course
- 2022 [TE.11] **CGT116: Geometric Modeling for Visualization and Communication.** CGT, Purdue. Instructor, taught 98 undergrad students, statewide and hybrid
- 2021 [TE.10] **CSE 490: Physical Computing.** CSE, UW. Remote teaching and hardware prototyping. Instructor: Jon E. Froehlich
 **Bob Bandes Memorial Honorable Mention Student Teaching Award [Top 1%]**
- 2020 [TE.9] **CSE 590A: Ubiquitous Computing.** CSE, UW. Course development and remote teaching. Instructor: Jon E. Froehlich
- 2019 [TE.8] **CSE 599U: Prototyping Interactive Systems.** CSE, UW.
Instructor: Jon E. Froehlich
- [TE.7] **CSE 440A: Introduction to HCI.** CSE, UW.
Instructor: Nigini Oliveira
- 2018 [TE.6] **CSE 440A: Introduction to HCI.** CSE, UW.
Instructor: Nigini Oliveira
- [TE.5] **CSE 590A: Ubiquitous Computing.** CSE, UW. Course development
Instructor: Jon E. Froehlich
- [TE.4] **HCID 521: Prototyping Studio.** HCID, UW. Course development
Instructors: Jon E. Froehlich and Jennifer Mankoff
- 2016 [TE.3] **CMSC 250: Discrete Structures.** CS. UMD, College Park.
- [TE.2] **CMSC 132: Object-Oriented Programming II.** CS. UMD, College Park.
- 2015 [T.1] **CMSC 131: Object-Oriented Programming I.** CS. UMD, College Park.

Services

Program Committee

- 2025 **CHI 2026 Program Committee, Associate Chair, *Developing Novel Devices* subcommittee**
- 2025 **UIST 2025 Program Committee, Associate Chair, *papers***
- 2025 **TEI 2026 Paper Co-chair, *work-in-progress***
- 2025 **CHI 2025 Program Committee, Associate Chair, *Blending Interaction: Engineering Interactive Systems & Tools* subcommittee**
- 2024 **TEI 2024 Program Committee, Associate Chair, *papers***
- 2024 **UIST 2024 Program Committee, Associate Chair, *papers***
- 2024 **DIS 2024 Program Committee, Associate Chair, *papers and pictorials***
- 2024 **ASSETS 2024 Program Committee, Associate Chair, *papers, posters, and demos***
- 2024 **SIGGRAPH 2024 Posters Jury Committee**
- 2024 **SIGGRAPH 2024 Emerging Technologies Jury Committee**
- 2024 **CHI 2024 Program Committee, Associate Chair, *Blending Interaction: Engineering Interactive Systems & Tools* subcommittee**
- 2024 **CHI 2024 Student Design Competition Review Committee**
- 2023 **ASSETS 2023 Program Committee, Associate Chair, *papers, posters, and demos***
- 2023 **DIS 2023 Program Committee, Associate Chair, *papers and pictorials***
- 2023 **Invited Guest Editor for *Journal - CCF Transactions on Pervasive Computing & Interaction***
- 2023 **IDC 2023 Program Committee, Associate Chair, *papers***
- 2022 **ASSETS 2022 Program Committee, Associate Chair, *papers, posters, and demos***
- 2021 **ACHI 2021 Program Committee, Associate Chair, *papers***
- 2021 **IDC 2021 Program Committee, Associate Chair, *work-in-progress***
- 2021 **CHI 2021 Program Committee, Associate Chair, *late-breaking work***
- 2020 **CHI 2020 Program Committee, Associate Chair, *late-breaking work***
- 2019 **CHI 2019 Program Committee, Associate Chair, *late-breaking work***

Organizing Committee

- 2025 **TEI 2026 Paper Co-chair, *work-in-progress***
- 2024 **Student Innovation Contest co-chair, *UIST 2024***
- 2023 **Posters & Demos co-chair, *ASSETS 2023***
- 2023 **Experience Reports co-chair, *ASSETS 2023***

- 2023 **Proceedings co-chair, *UIST 2023***
- 2022 **Proceedings co-chair, *UIST 2022***
- 2022 **Web and Graphic Design co-chair, *ASSETS 2022***
- 2019 **Design and Web co-chair, *UIST 2019***

Reviewing

250+ papers, **16 special recognitions for excellent review**

- 2025 ***SIGGRAPH 2025, IMWUT (Feb), *UIST '25****
- 2024 ***UIST '24, CHI '25, DIS '24, TEI '25, SIGGRAPH '24, ASSETS '24, ISMAR '24***
- 2023 ***CHI '24, SCF '23, IDC '23, ASSETS '23, DIS '23, UIST '23, IEEE VR '24***
- 2022 ***CHI '23, UIST '22, ASSETS '22, IEEE VR '23, IMWUT (November)***
- 2021 ***CHI '22, UIST '21, DIS '21, SCF '21, CSCW (April), AHCI '21***
- 2020 ***CHI '21, *UIST '20*, DIS '20, SCF '20***
- 2019 ***CHI '20, UIST '19, WAC '19***
- 2018 ***CHI '19***
- 2017 ***CHI '18, TEI '18***
- 2016 ***CHI '17, TEI '17, MobileHCI '16***
- 2015 ***CHI '16***

Other Services

- 2024 **Session Chairs, *UIST 2024***
- 2023 **Session Chair, *CHI 2023***
- 2022 **Session Chair, *UIST 2022***
- 2021 **Session Chair, *UIST 2021***
- 2017 **Student Volunteer, *TEI 2017***
- 2015 **Student Volunteer, *CHI 2015***
- 2014 **Student Volunteer, *UIST 2014***
- 2014 **Student Volunteer, *CHI 2014***
- 2012 **Student Assistant, *the first China Symposium on HCI***

Outreach

Collaborating with Seed Studio to organize *UIST 2024 Student Innovation Contest*

Selected and created a custom hardware kit – Gen-M Kit – that contains over 80 programmable modules for physical computing and distributed the kits to eight student teams around the world.

Leading the creation and maintenance of FabGalaxy (since 2018)

FabGalaxy is an online interactive visualization repository that provides a quick entry to fabrication research in human-computer interaction and computer graphics. This platform is hosted on the MIT's online repository for personal fabrication research which was created and maintained by HCI Engineering group, MIT CSAIL.

Press Coverages

- 2024 **Meet MobiPrint: A Mobile 3D Printer that Can Automatically Measure a Room and Print to the Specs.** *Tech Briefs.* [Link](#)
- 2024 **This Mobile 3D Printer Can Print Directly on Your Floor.** *IEEE Spectrum.* [Link](#)
- 2024 **Meet MobiPrint: The smart 3D printer that can upgrade your home instantly.** *TechXplore.* [Link](#)
- 2024 **From accessibility upgrades to a custom cat-food bowl, this mobile 3D printer can autonomously add features to a room.** *UW News.* [Link](#)
- 2024 **3D printing on the move: UW device can map a room and print custom items in desired space.** *GeekWire.* [Link](#)

Students

PhD Committees

- 2024–Present **Siqi Guo.** *Ph.D. in Technology at Purdue*
- 2024–Present **Fu-Chia Yang.** *Ph.D. in Technology at Purdue*
- 2023–Present **Ali Baigelenov.** *Ph.D. in Technology at Purdue*
- 2023–Present **Min Soo Choi.** *Ph.D. in Technology at Purdue*
- 2022–2023 **Dixuan Cui.** *Now Assistant Professor at Sam Houston State University*

Advisees

- 2024–Present **Aezaz Ali.** *M.S. in Gaming at Purdue.*
- 2023–Present **Amy Yu.** *M.S. in Information Visualization at Purdue.*
- 2022–Present **Hsuanling Lee.** *Research Associate in Computer Engineering at Purdue.*
- 2024–2025 **Thomas Carlock.** *M.S. in UX Design at Purdue.*
- 2024–2025 **Jasmine Li.** *Senior in UX Design at Purdue.*

2023–2025 **Haichang Li.** *Junior in Computer and Information Technology at Purdue.*

2024 **Neo Agrawal.** *Senior in UX Design at Purdue.*

2024 **Liuyi Chen.** *Visiting undergraduate student in Computer Science at HUST.*

2023 **Riddhi Chaudhari.** *M.S. in User Experience Design at Purdue.*

2023 **Prithvi Manjunatha.** *M.S. in User Experience Design at Purdue.*

2023 **Chenxi Yang.** *Senior in Computer Science and Technology at Tsinghua University.*

2023 **Jacqueline Dong.** *M.F.A. in Communications Design at Pratt Institute.*

2023 **Zishuo Feng.** *M.S. in Computer and Information Technology at Purdue.*

2023 **Srishti Shekhar Agrawal.** *M.S. in User Experience Design at Purdue.*

2023 **Shrey Panchal.** *M.S. in User Experience Design at Purdue.*

2023 **Rohan Pant.** *M.S. in User Experience Design at Purdue.*

2022 **Maverick Broviak.** *Senior in Biomedical Engineering at Purdue.*

2022 **Emily Ann Testin.** *Senior in Mechanical Engineering at Purdue.*

2022 **Liwen He.** *M.S. in Industrial Design at Beihang University, China.*

2022 **Yifan Li.** *Senior in Architecture at Southeast University, China.*

2021–2022 **Daniel Campos Zamora.** *Ph.D. in CSE at UW.*

2021 **Hongnan Lin.** *Ph.D. in Design at Georgia Tech; now postdoc at ISCAS.*

2020–2021 **Yueqian Zhang.** *Undergraduate in CSE at UW; now engineer at Roblox.*

2020–2021 **Xia Su.** *M.S. in Architecture at Tsinghua; now Ph.D. in CSE at UW.*

2020–2021 **Xiyuan Shen.** *Undergradudate in Media Art at Tsinghua; now Ph.D. in CSE at UW.*

2020–2021 **Arjun Simha.** *High school student; now undergrad in EE at UW.*

2019–2021 **Jessica Chin.** *Undergradudate in Psychology at UW; now at Meta.*

2020 **Yawen Zheng.** *Undergradudate in Media Art at Tsinghua; now M.S. at Tsinghua.*

2020 **Yuebing Liang.** *M.S. in Architecture at Tsinghua; now Ph.D. at Hong Kong Univ.*

2019 **Venkatesh Potluri.** *Ph.D. in CSE at UW; now Assistant Professor at UMich.*

2019 **Sophie Tian.** *Undergrad in CSE at UW; now software engineer at Microsoft.*

2018–2019 **Michelle Lin.** *Undergrad in CSE at UW; now grad in CSE at UW.*

2017 **Joshua Land.** *Undergrad in Mech Engineering at UMD; now engineer at Appian.*

2012 **Muyan Li.** *Undergrad at Beihang; now software engineer at UiPath.*

2012 **Yang Zhang.** *Undergrad at Beihang; now Assistant Professor at UCLA.*

2012 **Keqin Dou.** *Undergrad at Univ. of Science and Technology Beijing; now regional director at Fintopia.*