Serena Ge Guo

Email: gg372@cornell.edu
Website: https://www.serenageguo.com/research
Cellphone: +1 607-882-1396

Education

2021 - 2025
Ithaca, US

Cornell University
Ph.D. in Information Science
Bowers College of Computing and Information Science
Minor in Social Psychology
Committee: Keith Evan Green, Gilly Leshed, Andrea Stevenson Won, Guy Hoffman

2017 - 2020
New York, US

Columbia University
Master of Architecture
Graduate School of Architecture, Planning and Preservation

- Honor Award for Excellence in Design – Graduation Award (1/88)
- Award for Excellence in Animation - American Institute of Architects (AIA) (1/139)
- Buell Center Paris Prize - GSAPP Annual Award, 2019 & 2018 (1/88)
- William Kinne Fellows Traveling Prize - GSAPP 2020 - Graduation Award

2012 - 2015
Hong Kong

University of Hong Kong
Bachelor of Arts in Architectural Studies (Hons)
Department of Architecture

Academic Experiences

2025.8 - Now
Madison, WI, US

Postdoctoral Research Associate & Lecturer
University of Wisconsin–Madison, the Information School
School of Computer, Data & Information Sciences

- Research at People and Robots Laboratory, PI: Bilge Mutlu
- Teaching: LIS 612-User Experience Design (25 FA), LIS 613-HCI Evaluation (26 SP), and LIS 470-Interaction Design Studio (27 FA)

2023.6 – 2024.6
NYC, US

PiTech PhD Research Intern
YAI - Center for Innovation and Engagement

- Project lead for the "DentAR" project, initiated participatory design process with people IDD, doctors, occupational therapists, caregivers, and dental clinic staff. Resulted an AR sensory modulation experience design for people with heightened sensory sensitivity towards the dental clinic physical environment.

2021 - 2025
Ithaca, NY, US

PhD Research Assistant
Architectural Robotics Lab, Cornell University. PI: Keith Evan Green

- Project lead for the "RobotRoom" project, supported by NSF grant, a physical reconfigurable foldable robotic system that affords multiple activities for people living in limited space.
- Drafted and revised NSF EAGER funding proposal.
- Managed and guided undergraduate and graduate RAs on research activities.

2022.9 – 2024.1
Ithaca, NY, US

PhD Research Assistant
Virtual Embodiment Lab, Cornell University. PI: Andrea Stevenson Won

- Project lead for "Swatch," a VR social interaction project, including setting up the research scope, experiment design, VR development in Unity, user research, and writing up the manuscript.

2019.6 - 2020.6
NYC, US

Graduate Research Assistant
Computer Graphics and User Interfaces Lab, Columbia University. PI: Steven K. Feiner

- AR Prototyping for Project "Collaborative Urban Virtual Environment" in Unity.
- Designed and coded hand interaction methods (hand gestures and body movement) for pulling out yelp card and memo function of project “Curve” using C#, collaborating with programmers.

Peer-Reviewed Publications

I publish primarily in Human-Computer Interaction (HCI) and Human-Robot Interaction (HRI), where conferences are the primary venue for full-length, peer-reviewed publications. Venues such as ACM CHI and HRI are considered top-tier in the field, with rigorous review processes and acceptance rates typically ranging from 20–30%. These archival publications are comparable in length and scholarly contribution to journal articles in other disciplines.

[1] **Serena Ge Guo**, Nayeon Kwon, Jingjin Li, Gilly Leshed, Andrea Stevenson Won, and Keith Evan Green. *Co-Designing Environment-Based Strategies with Neurodivergent Individuals for Sensory-Inclusive Dental Visit Experiences.* In Proceedings of the CHI Conference on Human Factors in Computing Systems, (**CHI ’26**, acceptance rate: 25%) DOI
🏅 **Best Paper Honorable Mention (top 5% of submissions)**

[2] **Serena Ge Guo**, Qi Yang, Jenny Yu, Wenqian Niu, Yunting Yan, Gilly Leshed, Guy Hoffman, and Keith Evan Green. *“When We're Looking at the Robot, We See Each Other”: A Comparison of Robotic, Mirror-Based, and Hybrid Interventions for Stranger Interaction.* In Proceedings of the CHI Conference on Human Factors in Computing Systems (**CHI ’26**, acceptance rate: 25%). DOI

[3] **Serena Ge Guo**, Raquel Cañete Yaque, Jenny Yu, Gilly Leshed, Ian Walker, and Keith Evan Green. *Reconfiguring the Home: Co-Designing the Future of Adaptive Domestic Environments.* In Proceedings of the CHI Conference on Human Factors in Computing Systems (**CHI ’26**, acceptance rate: 25%). DOI

[4] **Serena Ge Guo**, Jenny Yu, Wenqian Niu, Yifei Gao, Guy Hoffman, Gilly Leshed, and Keith Evan Green. *Robot-Mediated Mutual Gaze: How a Mobile Robot with Actuated Mirrors Facilitates Encounters Between Strangers.* In Proceedings of the 2026 ACM/IEEE International Conference on Human-Robot Interaction (**HRI ’26**, acceptance rate: 23%). DOI
🏆 **Best Paper (top 1% of submissions)**

[5] Amy Koike, **Serena Ge Guo**, Xinning He, Callie Y. Kim, Dakota Sullivan, and Bilge Mutlu. *Elements of Robot Morphology: Supporting Designers in Robot Form Exploration.* In Proceedings of the 2026 ACM/IEEE International Conference on Human-Robot Interaction (**HRI ’26**, acceptance rate: 23%). DOI

[6] **Serena Ge Guo**, Hsin-Ming Chao, Huong Pham, Gilly Leshed, and Keith Evan Green. *Unraveling Strangers’ Interaction: An Analytical Framework for Understanding the Ice-Breaking Process with a Socio-Spatial Interface.* 2025. The Journal of ACM Transactions on Computer-Human Interaction (**TOCHI**, impact factor: 6.6). Oral presentation at **CHI’26**. DOI

[7] **Serena Ge Guo**, Raquel Cañete Yaque, Jenny Yu, Gilly Leshed, Ian Walker, and Keith Evan Green. *When the Robot Surrounds Us: Co-Designing a New Human-Robot Interaction in a Full-Scale, “Robot-Room” Rapid Prototype.* 2025. 34th IEEE International Conference on Robot and Human Interactive Communication (**RO-MAN ’25**). DOI

[8] **Serena Ge Guo**, Gilly Leshed, and Keith Evan Green. *“I normally wouldn’t talk with strangers”: Introducing a Socio-Spatial Interface for Fostering Togetherness Between Strangers.* In Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (**CHI ‘23**, acceptance rate: 27%). DOI
🏅 **Best Paper Honorable Mention (top 5% of submissions)**

[9] **Serena Ge Guo**, Qi Yang, Yunting Yan, Xiaoman Yang, Guy Hoffman, Gilly Leshed, and Keith Evan Green. *MirrorBot: Exploring Socio-Spatial Interactions that Foster Serendipitous Human Connections Through Robotic Mirrors.* In Extended Abstracts of the CHI Conference on Human Factors in Computing Systems (**CHI EA '25**, Interactivity, acceptance rate: 40%). DOI

[10] **Serena Ge Guo**. *Designing Socio-Spatial Interfaces for Embodied and Situated Social Interaction.* In Extended Abstracts of the CHI Conference on Human Factors in Computing Systems (**CHI EA '25**, Doctoral Consortium, acceptance rate: 18%). DOI

[11] **Serena Ge Guo**, Qi Yang, Rejoice Hu, and Guy Hoffman. *Facilitating Synchronized Movement during Ice-Breaking Scenarios through a Real-World Reinforcement Learning Agent Using Non-Verbal Behaviors.* The 2025 ACM/IEEE International Conference on Human-Robot Interaction Late-Breaking Report (**HRI '25**, Late-breaking report, acceptance rate: 40%). DOI

[12] **Serena Ge Guo** and Zhiwen Qiu. *DentAR: Innovating Dental Visits with Sensory Experiences in AR for People with Autism Spectrum Disorder*. In Extended Abstracts of the CHI Conference on Human Factors in Computing Systems (**CHI EA '24**, late-breaking work, acceptance rate: 33%). DOI

[13] **Serena Ge Guo**, Gilly Leshed, Trevor Pinch, and Keith Evan Green. *SocialStools: A Playful, Socio-Spatial Interface for Fostering Togetherness Across Strangers.* In Extended Abstracts of the 2022 CHI Conference on Human Factors in Computing Systems (**CHI EA '22**, Interactivity, acceptance rate: 34%). DOI

[14] **Serena Ge Guo** and Qi Yang. *Methods of Applying Augmented Reality to Nudge User Behaviors by Changing the Public and Private Landscapes in a Library.* 2019. Journal of Design Community. ISSN1674-9073. 113-117.

[15] (Under Review) **Serena Ge Guo**, Chuanrui Liu, Swati Pandita, Jakki O. Bailey, and Andrea Stevenson Won. (Under Review). *Investigating the Effects of Context and Experience on People's Attitudes toward Inconsistent Avatars.* (Full paper. Submitted to the International Journal of Human-Computer Studies)

Teaching and Mentoring

2025 Fall-Now
University of Wisconsin-Madison

Instructor

LIS 612 User Experience Design: Design & Prototyping

- Taught graduate-level UX Design course at the Information School.

LIS 613 User Experience Design: Research & Evaluation

- Taught graduate-level UX Research course at the Information School.

2022 Summer,
2025 Summer,
Cornell University

Instructor

INFO 5355 Human-Computer Interaction Design

- Co-taught the undergraduate and graduate-level UX Research Core course at Cornell during the summer, collaborating with a fellow PhD student. Duties include giving lectures, planning section activities, and mentoring 6 semester-long projects on human-centered-design including user research, interview, affinity diagram, storyboard, wire-frame, prototype, and usability test.

2021 - now
Cornell University

Teaching Assistant

Courses

- INFO 3450/5355 Human-Computer Interaction Design, 2021 fall, 2022 spring, 2024 fall
- INFO 4400/5400/6400 Qualitative User Research and Design Methods, 2023 spring, 2025 spring
- INFO 1200 Information Ethics, Law, and Policy, 2022 fall

Duties

- Teach weekly tutorial sessions with self-curated content based on the lecture
- Mentor student semester-long project, including concept development, user research, design strategy, visualization, Arduino, and presentation.
- Collaborated with the professors to update their syllabus.
- Organized logistics for reviewers, grading, and attendance.

2018 - 2020
Columbia University
GSAPP

Teaching Assistant

Courses

- ARCH 4001 Core III Architectural Design Studio
- ARCH 4002 Advanced Architectural Design Studio

Duties

- Gave advices on concept, design strategy, visualization, and implementation twice a week.
- Gave tutorials about the visual programming platform, virtual reality, augmented reality, and rendering software.
- Collaborated with professors to organize teaching activities and logistics.

2018 - 2025
Cornell University
Columbia University

Mentoring

- Chuanrui Liu, Cornell M.S. in IS – tech development, user study, paper writing, career
- Nayeon Kwon, Cornell M.S. in IS – design, research, user study, paper writing, career
- Hsin-Ming Chao, Cornell M.S. in DEA – research, user study, tech
- Nina Niu, Cornell M.S. in Landscape Architecture – design, research, fabrication
- Xiaoman Yang, Cornell M.S. in Design+Tech – design, mechanical engineering, research
- Yunting Yan, Cornell M.S. in MAE – mechanical engineering, research, career
- Daoxin Chen, Columbia Master student – research, career
- Shuang Bi, Columbia Master student - career
- Huong Pham, Cornell B.S in IS – research, user study, paper writing, career
- Jenny Yu, Cornell B.S in IS – research, user study, paper writing, career
- Miriam Alex, Cornell B.S. in CS – tech development, research
- Jonathan Ma, Cornell B.S. in CS – tech development, research
- Alif Abdullah, Cornell B.S. in CS – tech development, research
- Jay Zheng, Cornell B.S. in statistics – tech development, research
- Daniel Lee, Cornell B.S in IS – research, user study, career
- Penny Ren, Cornell B.S in IS – research, development
- Joy Shen, Cornell B.S in IS – design, career, tech - Now at Parsons
- Keying Lao, Cornell B.S. in Civil Engineering– Now toy product designer at Maison Battat

Professional Experiences

2020.6 - 2021.3
NYC, US

The Glimpse Group

VR Product Designer/Developer

- Developed VR application for group psychotherapy in Unity and Figma.
- Coded the experience of swapping avatar's features using C# including building UI panels in Unity, wired up the functions of each buttons, and designed the user flows.

2018.12 - 2019.1
NYC, US

SO-IL

Architectural Designer

- Developed the structure and canopy system for the Veiled Project.
- Produced the visual documentation for one exhibition.

2018.6 - 2018.8
NYC, US

SOM | Skidmore, Owings & Merrill LLP

Junior Architectural Designer

- Collaborated with lighting consultants, engineers, chief architects, furniture manufacturers on the interior lighting design and construction for project Waldorf Astoria.
- Concept design, Graphic visualization, 3D Modeling for project Waldorf Astoria.

2015.8 - 2017.1
Beijing, China

Center of Computational Design of Tsinghua Design Institute

Junior Architectural Designer

- Devised development strategies with local community and local officials for two 900-people villages (implemented).
- Designed 36,000 sqft renovation project, procedure the full set of construction documentation, and supervised the construction (built).
- Developed socio-technical system diagram of local rural villages.

Honors, Awards, and Fellowships

2026	CHI ’26 Best Paper Honorable Mention
2026	HRI ’26 Best Paper, Design Track
2024	Engaged Opportunity Grants ($5,000)
2024	HCE Engaged Research Seed Grants ($5,000)
2024	CCSS Qualitative and Interpretive Research Grant ($2,000)
2023	CHI ’23 Best Paper Honorable Mention
2023	Rev's Prototyping Hardware Accelerator Grant ($2,000)
2023	Gary Marsden Travel Awards ($2,000)
2023	XR Access Symposium Scholarship
2020	Honor Award for Excellence in Design
2020	Award for Excellence in Animation - American Institute of Architects (AIA)
2020	William Kinne Fellows Traveling Prize
2020	Panelist on DigitalFUTURES Young: AR/VR/Game Environments
2018, 2019	Buell Center Paris Prize
2017-2020	Selected for GSAPP Abstract 2017-2020

Exhibitions

2026	ACM/IEEE HRI’ 26 Demo, Edinburgh, UK – Project “MirrorBot”
2025	ACM CHI’ 25 Interactivity Demonstration, Tokyo, Japan – Project “MirrorBot”
2024	ACM CHI’ 24 Interactivity Demonstration, Honolulu – Project “DentAR”
2024	Neurodiversity Celebration Week 2024 Poster, Ithaca, New York - Project “DentAR”
2022	ACM CHI ’22 Interactivity Demonstration, New Orleans – Project “SocialStools”
2020	DigitalFUTURES: AR/VR/Game Environments, New York City - Project "AR Library"
2017-2020	Selected Works for "Abstract" Exhibition and Publication, New York City
2019	"Une Cambre Ailleurs" Exhibition in Paris, France - Project "Veiled"
2018	AR Mobile Urban Environments Exhibition at Tongji University - Project "Urban Fantasy"

Academic Service

Associate Chair	The ACM Human Factors in Computing Systems (CHI) 2026

* Special Recognitions for Outstanding Reviews

Reviewer	The ACM Human Factors in Computing Systems (CHI) 2023*, 2024, 2025*, 2026
	The ACM/IEEE International Conference on Human-Robot Interaction (HRI) 2025, 2026
	The ACM Computer-Supported Cooperative Work & Social Computing (CSCW) 2024, 2025
	The ACM Designing Interactive System (DIS) 2024*, 2025
	The ACM Creativity & Cognition (C&C) 2023, 2024
	The SIGCHI Computer-Human Interaction in Play (CHI PLAY) 2024
	The ACM Tangible, Embedded and Embodied Interaction (TEI) 2022, 2023