Serena Ge Guo

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Education

2021 - now
Ithaca, US

Cornell University
Ph.D. Student 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

- Excellent student graduation project

Refereed Publications

[1] **Ge (Serena) Guo**, Gilly Leshed, and Keith Evan Green. (Published). *"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%) https://doi.org/10.1145/3544548.3581325.
🏅 **Best paper Honorable Mention (top 5% of submissions)**

[2] **Ge (Serena) Guo**, Gilly Leshed, Trevor Pinch, and Keith Evan Green. (Published). *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%) https://doi.org/10.1145/3491101.3519877

[3] **Ge (Serena) Guo** and Zhiwen Qiu. (Published). *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%) https://doi.org/10.1145/3613905.3650926

[4] **Ge (Serena) Guo**, Qi Yang, Yunting Yan, Xiaoman Yang, Guy Hoffman, Gilly Leshed, and Keith Evan Green. (Published). *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%)

[5] **Ge (Serena) Guo**. (Published). *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%),

[6] **Ge (Serena) Guo,** Qi Yang, Rejoice Hu, and Guy Hoffman. (Published). *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 LBR'25, Late-breaking report, acceptance rate: 40%)

[7] **Ge (Serena) Guo** and Qi Yang. (Published). *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.

[8] **Ge (Serena) Guo**, Hsin-Ming Chao, Huong Pham, Gilly Leshed, and Keith Evan Green. (In Revision). *Beyond the First Glance: Unraveling Strangers' Interactions through a Behavioral Framework and Evaluating it in the Field.* (Full Paper. The Journal of ACM Transactions on Computer-Human Interaction, TOCHI)

[9] **Ge (Serena) Guo,** Nayeon Kwon, Jingjin Li, Gilly Leshed, Keith Evan Green, and Andrea Stevenson Won. (In Revision). *Co-Designing Environment-Based Strategies with Neurodivergent Individuals for Sensory-Inclusive Dental Visit Experiences.* (Full paper. Submitted to the ACM Computer-Supported Cooperative Work and Social Computing, CSCW '25)

[10] **Ge (Serena) 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)

[11] **Ge (Serena) Guo**, Raquel Cañete Yaque, Jenny Yu, Gilly Leshed, Ian Walker, and Keith Evan Green. (Under Review). *Envisioning Robot-Rooms: Collaborative Design and Agile Prototyping at Room-Scale to Extend the Boundaries of "Home"*. (Full paper. Submitted to the 2025 ACM Designing Interactive Systems DIS '25)

[12] **Ge (Serena) Guo**, Raquel Cañete Yaque, Jenny Yu, Gilly Leshed, Ian Walker, and Keith Evan Green. (Under Review). *Designing and Evaluating Reconfigurable Room-Scale Robotic Surfaces for Constrained Domestic Spaces.* (Full paper. Submitted to the 2025 IEEE International Conference on Robot and Human Interactive Communication, RO-MAN '25)

[13] **Ge (Serena) Guo**, Gilly Leshed, Guy Hoffman, and Keith Evan Green. (In Progress) *MirrorBot: Introducing serendipitous eye contacts in physical environment for social connectedness between strangers.* (Full paper. In the process of submitting to the 2026 CHI Conference on Human Factors in Computing Systems, CHI '26)

[14] **Ge (Serena) Guo**, Gilly Leshed, Guy Hoffman, and Keith Evan Green. (In Progress) *MirrorBot: Enhancing Social Connectedness through a Visual Language Model-Powered Planner* (Full paper. In the process of submitting to the 2026 ACM/IEEE International Conference on Human-Robot Interaction HRI '26)

Research Experiences

2021 - now
Ithaca, NY, US

Architectural Robotics Lab, Cornell University
PhD Research Assistant with Prof. Keith Evan Green

- Project lead for the "RobotRoom" project, a physical reconfigurable foldable robotic system that affords multiple activities for people living in limited space. Duties include setting up the research scope, physical prototyping design, 3d modeling, lasercutting, fabrication, experiment design, user research, and writing up the manuscript.
- Drafted and revised NSF EAGER funding proposal.
- Managed and guided undergraduate and graduate RA on research activities.

2023.6 - now
NYC, US

YAI - Center for Innovation and Engagement
PiTech PhD Research Fellow, Mixed Reality Designer & Researcher

- Project lead for the "DentAR" project, an AR sensory modulation experience for people with heightened sensory sensitivity towards the dental clinic physical environment. Duties include concept scoping, user research, collaboration with different stakeholders, low-fi prototyping, and high-fi prototyping in Unity with C#, and writing up the manuscript.

2022.9 – 2024.1
Ithaca, NY, US

Virtual Embodiment Lab, Cornell University

PhD Research Assistant with Prof. Andrea Stevenson Won

- Project lead for "HandPerceive," 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

Computer Graphics and User Interfaces Lab, Columbia University

Graduate Research Assistant with Prof. Steven K. Feiner, CS Department

- 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.

2015.8 - 2017.1
Beijing, China

Center of Computational Design in Tsinghua Design Institute

Architectural Researcher with Prof. Qiang Chang

Project: Data-driven Sustainable Methods for Revitalizing Vernacular Villages

- Collaborated with sociologists to conduct over 100 home-in user interviews with villagers in rural China.
- Surveyed over 100 vernacular residential buildings' floor plans.
- Conducted thematic analysis and descriptive data visualization.

Teaching and Mentoring

2021 - 2024
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.

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.

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 Intern

- 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

2024	Engaged Opportunity Grants ($5,000)
2024	HCE Engaged Research Seed Grants ($5,000)
2024	CCSS Qualitative and Interpretive Research Grant ($2,000)
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

2024	ACM CHI' 24 Demo, Honolulu – Project "DentAR"
2024	Neurodiversity Celebration Week 2024 Demo, Ithaca, New York - Project "DentAR"
2022	ACM CHI '22 Interactivity, 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

Reviewer	The ACM Human Factors in Computing Systems (CHI)
Reviewer	The ACM Computer-Supported Cooperative Work & Social Computing (CSCW)
Reviewer	The ACM Designing Interactive System (DIS)
Reviewer	The ACM Creativity & Cognition (C&C)
Reviewer	The SIGCHI The Annual Symposium on Computer-Human Interaction in Play (CHI PLAY)
Reviewer	The ACM Tangible, Embedded and Embodied Interaction (TEI)