

Jin Yu

Postdoctoral Fellow, School of Interactive Arts and Technology, Simon Fraser University

jin_yu_2@sfu.ca | jinyu.us | [ORCID 0000-0001-7905-9694](https://orcid.org/0000-0001-7905-9694) | [Google Scholar](#)

RESEARCH INTERESTS

I design interactive tools that support children's thinking through making. My work sits at the intersection of human-computer interaction, design, and learning, with a focus on tangible and physical computing, youth co-design, functional prototyping, and how AI can support children's making and thinking.

ACADEMIC APPOINTMENTS

Simon Fraser University, Surrey, BC, Canada

Sep 2026 – present

Postdoctoral Fellow, School of Interactive Arts and Technology (SIAT)

Supervisor: Dr. Alissa N. Antle. SSHRC-funded project on children's AI critical literacy.

EDUCATION

Georgia Institute of Technology, Atlanta, GA, USA

Aug 2020 – Jul 2026

Ph.D. in Human-Centered Computing, School of Interactive Computing, College of Computing

Dissertation: *Beyond Ideation: Functional Prototyping for Youth Co-Design of Future Technologies*

Committee: HyunJoo Oh (chair), Betsy DiSalvo, Thad Starner, Judith Uchidiuno, Jinsil Seo, Alissa N. Antle

Georgia Institute of Technology, Atlanta, GA, USA

Aug 2016 – Dec 2019

M.S. in Architecture, School of Architecture, College of Design

Specialization: Urban Design and Computational Design

Korea University, Seoul, South Korea

Mar 2010 – Dec 2015

B.S. in Architecture, School of Architecture, College of Engineering

PUBLICATIONS

* denotes equal contribution. **Bold** marks my name.

Journal Articles

- [J1] **Yu, J.**, Bhattacharya, K. L., Yan, J., Hsi, S., & Oh, H. (2026). Design implications for supporting youth prototyping of future wireless communication systems. *CoDesign: International Journal of CoCreation in Design and the Arts*, 1–26. <https://doi.org/10.1080/15710882.2025.2611107>
- [J2] Arora, N., **Yu, J.**, Oh, H., Starner, T. E., & Abowd, G. D. (2020). SATURN: Technical and design challenges of building a self-sustaining sound and vibration sensing material. *ACM GetMobile: Mobile Computing and Communications*, 23(3), 28–33. <https://doi.org/10.1145/3379092.3379103>

Refereed Conference Papers

- [C1] **Yu, J.**, Jung, S., DiSalvo, B., & Oh, H. (2026). Positioning youth as evaluators: A youth-led evaluative phase for surfacing situated values in co-design. *Proceedings of the ACM Interaction Design and Children Conference (IDC '26)*. Brighton, UK. <https://doi.org/10.1145/3773077.3806101>
- [C2] Xie, J., Gao, Y., **Yu, J.**, Cheng, T., & Oh, H. (2026). 3D printing soap: Exploring new biodegradable materials and creative possibilities. *Proceedings of the CHI Conference on Human Factors in Computing Systems (CHI '26)*. <https://doi.org/10.1145/3772318.3791790>
- [C3] **Yu, J.**, Garg, P., Synn, D., & Oh, H. (2025). Tangible-MakeCode: Bridging physical coding blocks with a web-based programming interface for collaborative and extensible learning. *Proceedings of the CHI*

Conference on Human Factors in Computing Systems (CHI '25).

<https://doi.org/10.1145/3706598.3713260>

- [C4] Yu, J., Hsi, S., Van Doren, S., & Oh, H. (2022). My:Talkies: Designing a craft kit to support learning about communication devices through making. *Proceedings of the ACM Interaction Design and Children Conference (IDC '22)*. <https://doi.org/10.1145/3501712.3529720>
Kit used in the Explora Science Center and Children's Museum summer camp, Albuquerque, NM, 2022.
- [C5] Yu, J. *, Sakhardande, P. *, Parmar, R., & Oh, H. (2022). Strawctures: A modular electronic construction kit for small to large-scale interactive structures. *Proceedings of the ACM International Conference on Tangible, Embedded, and Embodied Interaction (TEI '22)*. <https://doi.org/10.1145/3490149.3501322>
- [C6] Deshpande, H., Yu, J., Talyan, A., Posner, N., Zheng, C., & Oh, H. (2022). Upcycling discarded HDPE plastic bags for creative exploration in product design. *Proceedings of DRS2022: Bilbao, Design Research Society*. <https://doi.org/10.21606/drs.2022.266>

Doctoral Consortium

- [D1] Yu, J. (2026). AI-augmented tangible programming: Extending Tangible-MakeCode for creative learning. *Doctoral Consortium, ACM International Conference on Tangible, Embedded, and Embodied Interaction (TEI '26)*. <https://doi.org/10.1145/3731459.3779040>

Dissertation

- [T1] Yu, J. (2026). Beyond ideation: Functional prototyping for youth co-design of future technologies. *Doctoral dissertation, Georgia Institute of Technology*. <https://hdl.handle.net/1853/82124>

Under Review

- [R1] Yu, J. *, Pease, R. *, Manikandan, S., Xie, J., & Oh, H. (under review). Back and forth: AI-mediated transitions between tangible and screen-based programming. *Submitted to the CHI Conference on Human Factors in Computing Systems (CHI '27)*.

Patents

- [P1] Yu, J., Oh, H., Synn, D., & Garg, P. (2026). Coding blocks learning system and method. *U.S. Patent Application Publication No. US 2026/0112292 A1*. Filed Oct 14, 2025; published Apr 23, 2026. Georgia Tech Research Corporation.

RESEARCH EXPERIENCE

Simon Fraser University, School of Interactive Arts and Technology

Sep 2026 – present

Postdoctoral Fellow | Supervisor: Alissa N. Antle

- Contributing to an SSHRC-funded project on children's AI critical literacy, with a focus on tangible and making-based activities.
- Leading Turn It Around, a study of whether making with AI may support a flexible mindset in children.
- Running the first Turn It Around study in a pilot AI workshop for middle school students at Explora, Albuquerque, NM (Dec 2026).
- Worlds of Their Own: children build terrariums as a living referent for judging AI answers, and the study examines whether this habit of checking AI may transfer (pilot planned for early 2027).

Georgia Institute of Technology, School of Interactive Computing

May 2021 – Jul 2026

Graduate Research Assistant | Advisor: HyunJoo Oh

Co-design toolkits for youth prototyping of future wireless communication devices

- Designed and developed tangible and digital toolkits that let youth with little prior technical experience ideate, prototype, and evaluate interactive technologies.
- Integrated the micro:bit, MakeCode visual programming, and custom physical coding blocks so learners move back and forth between hands-on building and on-screen programming.

- Extended Tangible-MakeCode with conversational AI guidance to support creative exploration and continued learning (AI-Tangible-MakeCode).
- Led eight co-design workshops with approximately 170 middle school youth and teachers.
- Conducted qualitative and mixed-methods evaluation (observation, interviews, surveys) of learning, engagement, and inclusivity.
- Supported by the National Science Foundation (NSF #2053160).

PARQR: Automatic post suggestion in the Piazza online forum

Aug 2020 – Dec 2020

Graduate Research Assistant | Advisor: Thad Starner

- Designed and tested a recommendation interface for the Piazza course forum; ran usability studies and heuristic evaluations.

3D Campus Update: 3D modeling of the Georgia Tech campus

Jan 2017 – May 2017

Graduate Research Assistant | Advisor: Matthew Swarts

- Created low-poly 3D building models and interactive visualizations for VR/AR and mobile campus navigation.

RESEARCH SUPPORT

SSHRC: Children's AI critical literacy (PI: Alissa N. Antle). Postdoctoral Fellow

2026 – present

NSF Supplemental Award (PI: Sherry Hsi, BSCS Science Learning). Collaborator

2026 – present

NSF Award #2053160 (PI: HyunJoo Oh). Graduate Research Assistant

2021 – 2026

HONORS AND AWARDS

Teaching Honor Roll, Intro to UI Design, Georgia Institute of Technology (CIOS)

2024

Charles Brown Fellowship, Georgia Institute of Technology

2016

Engineering College Alumni Grant, Korea University

2015

Creative Challenger Program Winner, Korea University

2015

INVITED TALKS AND PRESENTATIONS

Post-Doc Panel, SIAT Graduate Colloquium, Simon Fraser University (upcoming)

Jan 2027

HCDE Research Speaker Series, University of Washington, Seattle, WA (upcoming)

Nov 2026

Paper presentation, ACM Interaction Design and Children Conference (IDC '26), Brighton, UK

Jun 2026

Invited talk, TIDAL Lab (PI: Michael Horn), Northwestern University, Evanston, IL

May 2026

Ph.D. Dissertation Lightning Talks, Georgia Institute of Technology

Apr 2025

OMSCS Research Talk, Georgia Institute of Technology

Mar 2025

Invited panelist, Interaction Design Night, Yonsei University, Seoul, South Korea

2025

TEACHING EXPERIENCE

Instructor of Record

Intro to UI Design (CS 3741), Georgia Institute of Technology

Summer 2024

- Taught HCI, user-centered design, prototyping methods, and digital fabrication to undergraduates from Computer Science, Industrial Design, and Industrial Engineering.
- Guided project work on design thinking, usability testing, and iterative prototyping of functional UI prototypes.
- Recognized on Georgia Tech's Teaching Honor Roll (CIOS).

Guest Lectures

Information Design (IAT 235), Simon Fraser University Oct 2026

- Taught the "Bare Bones" module: introduction to interaction design and wireframing.

Prototyping Interactive Systems (CS 6452), Georgia Institute of Technology Fall 2022

- Guest lectures on digital fabrication (Illustrator, laser cutting) and sound interaction and media.

Graduate Teaching Assistant, Georgia Institute of Technology

Human-Computer Interaction (CS 6750) Aug 2024 – Aug 2026

- Supported an online graduate course of approximately 1,000 students on HCI theories, methods, and evaluation; gave feedback on assignments and group projects.

Mobile and Ubiquitous Computing (CS 4605/7470) Aug 2023 – May 2024

- Supported on-campus (about 50) and online (about 200) cohorts on sensing, sensor data analysis, and context-aware systems; mentored project teams.

User Interface Design (CS 3750) Summer 2023

- Taught HCI concepts, interface design principles, and usability evaluation; mentored prototype teams.

Prototyping Interactive Systems (CS 6452) Aug 2022 – Dec 2022

- Introduced software and hardware prototyping tools, including Arduino and Processing.

Architecture Media Modeling III (ARCH 2474/6474) Aug 2018 – Dec 2018

- Taught Grasshopper parametric modeling and architectural representation.

STUDENT MENTORING

River F. Pease, B.S. Computer Science, Georgia Tech May 2025 – Aug 2026

Jing Xie, M.S. Industrial Design, Georgia Tech May 2024 – Aug 2026

Poojita Garg, M.S. Computer Science, Georgia Tech Aug 2023 – Jan 2024

Junzhe Yan, B.S. Industrial Design, Georgia Tech Aug 2022 – May 2024

Karina L. Bhattacharya, M.S. Industrial Design, Georgia Tech Aug 2022 – May 2024

Palak Gupta, M.S. Industrial Design, Georgia Tech Aug 2022 – Dec 2022

Mentored students are co-authors on J1, C2, C3, and R1.

PROFESSIONAL SERVICE

Organizing

Demos Chair, ACM Interaction Design and Children Conference (IDC 2027), Seattle, WA 2026 – 2027

Organizer, Human-Centered Computing Ph.D. Student Seminar, Georgia Tech 2022

Reviewing

- Conferences: ACM CHI Papers (2022–2027), CHI Posters (2026); ACM TEI (2021–2027); ACM DIS (2023–2026); ACM UIST (2026); ACM CHI PLAY (2026); ACM C&C (2021–2022, 2026); ACM SCF (2026); Academic Mindtrek (2024)
- Journals: PACM IMWUT (2026); PACM EICS (2026); International Journal of Child-Computer Interaction (2025, 2026)

Teaching and Community Service

Guest Critic, Integrated Product Design (ID 6107), Georgia Tech Spring 2025, Fall 2025
Workshop Instructor, K-12 Teacher Professional Development on tangible computing and coding Aug 2023
Reading Club Leader, Possible Minds: Twenty-Five Ways of Looking at AI (ed. J. Brockman)
President, Korea University Alumni at Georgia Tech Dec 2020 – Aug 2022
Social Event Organizer, Korean Student Association in Computing, Georgia Tech Aug 2021 – Aug 2022

PROFESSIONAL EXPERIENCE

Innovator-in-Residence, CEISMC, Georgia Institute of Technology, Atlanta, GA Dec 2019 – Jun 2020

- Co-designed STEAM curriculum with Atlanta public school teachers, including 3D pens, origami, and coding activities.

Project Manager, EDITCollective, Seoul, South Korea Mar 2018 – Oct 2018

- Managed designers and developers building a real-estate information platform; analyzed urban space with GIS data and policy.

Research Assistant, Architecture & Urban Research Institute, Seoul 2016; 2018

- Researched Social Impact Bond projects for retrofitting underdeveloped areas and healthcare design cases.

Architectural Design Intern, Penelas Esteban Architects, Madrid, Spain Jan 2014 – May 2014

- Contributed modeling and renderings to a design competition for a cemetery park in Ecuador.

SKILLS

Programming: Python, JavaScript, MakeCode, Processing (p5.js)

Fabrication and physical computing: micro:bit, Arduino, Raspberry Pi, sensors, 3D printing, laser cutting, CNC

Design and methods: Figma, UI/UX and interaction design, participatory and co-design, qualitative and mixed-methods evaluation