Gene S-H Kim

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Education

Massachusetts Institute of Technology – Cambridge, MA

Ph.D. Candidate in Electrical Engineering and Computer Science, January 2026 – Present

Advisor: Arvind Satyanarayan and Jas Brooks

Stanford University – Stanford, CA

B.S. (with honors) Symbolic Systems, June 2025

Advisor: Sean Follmer

Honors Thesis: Understanding Natural Language for Nonvisual 3D Shape Visualization

Honors and Awards

Research and Technical

2025 ACM CHI Best paper honorable mention

Awarded to top 5% of papers for "IncluSim: An Accessible Educational Electronic Circuit Simulator for Blind and Low-Vision Learners."

2025 CRA Outstanding Undergraduate Researcher Award

> 1 of eight undergraduates recognized by the Computing Research Association in North America for exceptional research potential.

2023 1st Place at AccessHack

> Top performer of 12 teams in an assistive technology hackathon for project on accessible text entry on wearables by blind users with multiple disabilities.

2021 Web4All Best Technical Paper Nominee

> Awarded to top 4% of papers for "COVID-19 highlights the issues facing blind and visually impaired people in accessing data on the web.”.

Leadership and Service

2025 DO-IT Trailblazer Award

Recognized by the Disabilities, Opportunities, Internetworking, and Technology Center for expanding opportunities for disabled people in education, careers, and community life.

2023 – 2024 Kenneth Jernigan Leadership in Service Program Scholar

1 of 15 selected nationwide to receive year-long intensive civil rights activism, non-profit governance, and strategic leadership training by the National Federation of the Blind.

2022 Lime Connect Fellow

1 of 25 rising juniors with disabilities recognized nationwide by Google, Microsoft, and other Lime Connect partners based on academic merit and leadership

2021 College Admissions Mentor of the Year

1 of 7 Project Access International college admissions mentors recognized for outstanding service to underrepresented minorities applying to top tier colleges.

Publications

ACM CHI and UIST are the premier venues for technical Human-Computer Interaction (HCI) publications, and ACM ASSETS is regarded as the premier venue for assistive technology research. These are fully peer-reviewed and have an acceptance rate of 20-25%. These are considered top-tier in the field, even when considering HCI journals, and Computer Science is a conference-focused discipline.

Full Refereed Papers

[10] Seehorn, M. E.*, Winston, C.*, Liu, B., Kim, G. S-H., ... & Mankoff, J. "Beyond Beautiful: Embroidering Legible and Expressive Tactile Graphics." In. Proc. ACM ASSETS 2025

[9] Zhang, Z. J., Li, H., Yu, C. M., Faruqi, F., Xie, J., Kim, G. S-H., ... & He, L. "A11yShape: AI-Assisted 3-D Modeling for Blind and Low-Vision Programmers." In. Proc. ACM ASSETS 2025

[8] Kim, G. S-H.*, Teng, S-Y.*, Liu, X.*, Lopes, P. "Seeing with the Hands: Adding a New Perspective to Sensory Substitution." In. Proc. ACM CHI 2025 [Co-Presenter]

[7] Fan, D., Tomassetti, O., Mouallem, A., Kim, G. S-H., ... & Follmer, S. "Promoting Comprehension and Engagement in Introductory Data and Statistics for Blind and Low-Vision Students: A Co-Design Study." In. Proc. ACM CHI 2025

[6] Mouallem, A., Pons, M., Malik, A., Rogando, T., Kim, G. S-H., ... & Sheppard, S. D. "IncluSim: An Accessible Educational Electronic Circuit Simulator for Blind and Low-Vision Learners." In. Proc. ACM CHI 2025 [Best paper honorable mention]

[5] Zhang, Z., Kim, G. S-H., & Wobbrock, J. O. "Developing and Deploying a Real-World Solution for Accessible Slide Reading and Authoring for Blind Users." In. Proc. ACM ASSETS 2024

[4] Fan, D., Fay Siu, A., Rao, H., Kim, G. S-H., ... & Follmer, S. "The accessibility of data visualizations on the web for screen reader users: Practices and experiences during covid-19." ACM TACCESS 2023

[3] Hofmann, M., Auradkar, N., Birchfield, J., Cao, J., Hughes, A. G., Kim, G. S-H., ... & Hudson, S. E. (2023, April). OPTIMISM: Enabling Collaborative Implementation of Domain Specific Metaheuristic Optimization. In. Proc. ACM CHI 2023

[2] Siu, A., Kim, G. S-H., O'Modhrain, S., & Follmer, S. "Supporting accessible data visualization through audio data narratives." In. Proc. ACM CHI 2022 [Co-Presenter]

[1] Siu, A. F., Fan, D., Kim, G. S-H., Rao, ... & Follmer, S. "COVID-19 highlights the issues facing blind and visually impaired people in accessing data on the web." In. Proc. Web4All 2021 [best technical paper nominee]

Refereed Posters and Experience Reports

[4] Fan, D., Kim, G. S-H., Tomassetti, O., Patel, S. N., ... & Follmer, S. "Tangible Stats: An Embodied and Multimodal Platform for Teaching Data and Statistics to Blind and Low Vision Students." In ACM CHI EA 2024

[3] Kulkarni, T., Kim, G. S-H., & Mouallem, A. "A Case for Improving the Accessibility of Electrical and Computer Engineering Education–Starting with a Blind Student's Autoethnography." In Proc. ACM ASSETS 2023

[2] Kim, G. S-H.*, Seehorn, M. E.*, Desai, A., Hofmann, M., & Mankoff, J. (2022, October). Enhancing access to high quality tangible information through machine embroidered tactile graphics. In Proc. ACM SCF 2022

[1] Chase, E. D.*, Siu, A. F.*, Kim, G. S-H.**, Boadi-Agyemang, A.**, ... & Follmer, S. "PantoGuide: A Haptic and Audio Guidance System To Support

Tactile Graphics Exploration." In. Proc. ACM ASSETS 2020

Other Publications

[1] Siu, A. F., Chase, E. D., Kim, G. S-H., Boadi-Agyemang, A., ... & Follmer, S. "Haptic guidance to support design education and collaboration for blind and visually impaired people." In Design Thinking Research: Translation, Prototyping, and Measurement, Springer 2023

Professional Experience

Research

Shape Lab, **Stanford University** – Stanford, CA

Undergraduate Researcher, June 2020 – June 2025

PI: Sean Follmer

Human-Computer Integration Lab, **University of Chicago** – Chicago, IL

Research Intern, June 2024 – September 2024

PI: Prof. Pedro Lopes

Accessible Creative Technologies Lab, **Northeastern University** – Boston, MA

Research Intern and Collaborator, June 2023 – September 2024

PI: Prof. Megan Hofmann

Accessible Computing Experiences Lab, **University of Washington** – Remote

Research Collaborator, October 2022 – March 2024

PI: Prof. Jacob Wobbrock

Designing Education Lab, **Stanford University** – Stanford, CA

Undergraduate Researcher, September 2022 – March 2024

PI: Prof. Sheri Sheppard

Make4all Lab, **University of Washington** – Seattle, WA

Research Intern, June 2022 – September 2022

PI: Prof. Jennifer Mankoff

Other Technical

Stanford Department of Computer Science – Stanford, CA

Undergraduate Teaching Assistant – September 2022 – December 2024

> Hosted office hours, graded assignments, and taught weekly 8 – 14 students per quarter introductory computer science concepts in Python and C++. Co-lead training for seven new undergraduate teaching assistants in winter 2024

New Haptics – Ann Arbor, MI

Software Engineering Summer Intern, August 2023 – September 2023

Prototyped accessible tangible UI/UX for authoring slideshow presentations and file/application management for multi-line braille display start up.

R.D. Partners – Remote

Frontend Developer Intern, October 2020 – February 2021

> Designed/Built prototype of a screen reader accessible omnichannel request management dashboard for blind customer service representatives.

Service and Outreach

U.S. International Council on Disabilities

Youth Advisory Committee Member, September 2025 – Present

1 of 11 advocates selected globally to help implement the United Nations Convention on the Rights for Persons with Disabilities.

Science and Engineering Division, National Federation of the Blind

Board of Directors, July 2024 – Present

Nominated and elected to serve on the leadership team of the largest advocacy organization of blind scientists and engineers in America.

STEM2U Program, National Federation of the Blind

Instructor, July 2024 – August 2024

Traveled to Nevada and Indiana to teach blind youth ages 6 – 18 about astronomy, chemistry, properties of light/sound waves, etc. through day-camp activities.

AI and Disability Affinity Group, Stanford Institute for Human-Centered AI

Founder and Director, October 2023 – June 2024

Created community of disabled students and allies to reflect on Generative AI's impact on accessibility through speaker events and dinner conversations.

SySTEMic Access Mentorship

Co-Founder and Co-director, November 2021 – April 2024

Fostered a community of blind scientists and engineers to network non-visual STEM strategies, receive mentorship, and collaborate on projects to advance accessible STEM.

Disability Advocacy Team, National Federation of the Blind

California Advocate, January 2024

Met with congressmen in Washington, D.C. to garner support for accessibility bills, (e.g. Websites and Software Applications Accessibility Act).

National Association of Blind Students

Pacific Student Seminar General Conference Chairperson, May 2023

Lead 10-person organizing committee for a three-day public speaking and self-advocacy conference for 40+ student attendees. Secured hotel contract, guest speakers, etc.

Project Access International

College Admissions Mentor September 2020 - August 2021

Mentored international student through the American undergraduate admissions process. Admitted to top 10 engineering school.

Speaking Engagements

Panels

July 2025, "Perspectives on Growing Pains in the Organized Blind Movement."

National Federation of the Blind National Convention

Spoke on how large disability advocacy non-profits can better mentor and integrate young adult leaders alongside Manahil Jafri (S&P Global) and Kinshuk Tella (SparkAI)

October 2022, "AstraZeneca, Are We Ready for GenZ?"

AstraZeneca Th!nk and Disabilities ERG

Reflected on the future of accessible corporate work on an internal panel alongside Ana Dias (AstraZeneca), Angela Harris (Vanderbilt), and Olivia Sieler (Columbia).

Invited Talks

November 2025, "Reflections from a Blind Advocate and Researcher"

National Federation of the Blind of Connecticut

*I also gave versions of this talk in Nebraska (April 2024), Michigan (November 2023), Mississippi (August 2023), and New Mexico (August 2022)

May 2025, "Visualizing Shapes with Language, Haptics, and Sound"

CRA and Lawrence Berkeley National Lab/Sandia National Labs

December 2024, "Towards More Expressive Tactile Graphics with Machine Embroidery"

Computer Science Division, National Federation of the Blind