Minsuk Chang

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Research Interest

My research spans data visualization and human-computer interaction (HCI). I study how people perceive and interact with visualizations, with a particular focus on visual attention and human perception, drawing on methods from vision science. My recent papers include eye-tracking and perception studies of how people read charts, and models that predict visual attention.

Keywords: Visualization, Vision Science, Human Perception, Eye-tracking, Visual Attention

Education

2024–Present **Georgia Institute of Technology**
Ph.D. Student in Computer Science
Advisor: Cindy Xiong Bearfield

2018–2024 **Seoul National University**
B.S. in Computer Science & Engineering
Advisor: Jinwook Seo

Awards and Distinction

2023 Spring Academic Excellence Scholarship, Seoul National University ($2,000)
2023 Fall Academic Excellence Scholarship, Seoul National University ($2,000)

Research Experience

Sep. 2026 - Dec. 2026 **Dolby Laboratories | Atlanta, GA**
PhD Research Intern @ Advanced Technology Group
Mentor: Tica Lin

Apr. 2026 - Aug. 2026 **LG AI Research | Seoul, South Korea**
Summer Research Internship @ Superintelligence Lab
Mentor: Bumsoo Kang, Jiyong Cho, Moontae Lee

May. 2025 - Aug. 2025 **Tableau Research @ Salesforce | Palo Alto, CA**
Summer Research Internship
Mentor: Srishti Palani, Arjun Srinivasan

Jul. 2023 - Jul. 2024 **Seoul National University | Seoul, South Korea**
Undergraduate Research Internship @ HCI Lab
Advisor: Jinwook Seo

Sep. 2022 - Feb. 2024 **University of Seoul | Seoul, South Korea**
Undergraduate Research Internship @ Data Mining Lab
Advisor: Han-joon Kim

Publications

I have authored papers in data visualization (IEEE VIS, EuroVis, PacificVis), human-computer interaction (ACM IUI), data science (IEEE BigData), and vision science (VSS) conferences.

In Review & In Prep

P1. **M. Chang**, K. R. Lin, T. Lin, F. A. Robinson, D. Gunawan, C. X. Bearfield. "Ambient Light Design through the Lens of Visualization Grammar." In preparation. In collaboration with Dolby Laboratories.

P2. **M. Chang**, B. Kang, J. Cho, M. Lee. "Coltrics: Externalizing and Reconciling Evaluation Criteria for Collaborative Decision-Making." In preparation for *ACM CHI 2027*. Work during internship at LG AI Research.

P3. **M. Chang**, A. Malitek, K. Fukuda, C. X. Bearfield. "Bias Mitigation Strategies in Scatterplot Correlation Estimation." In preparation for *IEEE PacificVis 2027*. In collaboration with the University of Toronto.

Conference Papers

C8. S. Lee, S. Park, **M. Chang**, J. Seo. "Revisiting Channel Effectiveness: A Multi-Dimensional Evaluation with Primitive Visual Stimuli." In: *IEEE VIS 2026*. In collaboration with Seoul National University.

C7. K. Lin, S. S. Ru, **M. Chang**, C. X. Bearfield. "beautiVis: An Annotated Visualization Dataset from Reddit's r/dataisbeautiful." In: *IEEE PacificVis 2026*. Sydney, Australia.

C6. **M. Chang**, A. Srinivasan, S.Palani. "Criticality: Scaffolding Decision-Making with Interactive Critical Thinking and Evidence-Based Reasoning Traces." In: *ACM IUI 2026*. Paphos, Cyprus.

C5. **M. Chang**, Y. Wang, H. W. Wang, Y. Zhou, A. Bulling, C. X. Bearfield. "Tell Me Without Telling Me: Two-Way Prediction of Visualization Literacy and Visual Attention." In: *IEEE VIS 2025*. Vienna, Austria. Acceptance rate: 24.3% (131/537).

C4. **M. Chang**, Y. Wang, H. W. Wang, A. Bulling, C. X. Bearfield. "Grid Labeling: Crowdsourcing Task-Specific Importance from Visualizations." In: *EuroVis 2025*. Luxembourg, Luxembourg. Acceptance rate: 33% (20/60).

C3. S. Lee, **M. Chang**, S. Park, J. Seo. "Assessing Graphical Perception of Image Embedding Models using Channel Effectiveness." In: *IEEE VIS 2024*. Florida, USA. Acceptance rate: 31.9% (66/207).

C2. **M. Chang**, D. Kim, H. Jeon, S. Jung, J. Seo. "CLeVer: Continual Learning Visualizer for Detecting Task Transition Failure." In: *IEEE PacificVis 2024*. Tokyo, Japan.

C1. **M. Chang**, H. Kim. "Tensor Space Model-based Textual Data Augmentation for Text Classification." In: *IEEE International Conference on Big Data 2023*. Sorrento, Italy.

Workshops, Posters & Demos

D4. **M. Chang**. Doctoral Colloquium. In: *IEEE VIS 2026*. Boston, MA, USA.

D3. **M. Chang**, A. Malitek, K. Fukuda, C. X. Bearfield. "Early Stage Eye-fixations Reveal Belief-Driven Bias in Correlation Perception." In: *Vision Sciences Society (VSS) 2025*. Florida, USA.

D2. A. Malitek, **M. Chang**, C. X. Bearfield, K. Fukuda. "Seeing What You Want to See: How Belief Biases Perception and Memory." In: *Vision Sciences Society (VSS) 2025*. Florida, USA.

D1. **M. Chang**, S. Park, H. Jeon, A. Cho, J. Seo. "Extracting Human Attention through Crowdsourced Patch Labeling." In: *IEEE VIS 2024*. Florida, USA.

Talks

All first-author conference papers listed above were also given as presentations at their respective conferences and are not listed again in this section.

Seminars

Gaze Tracking in Data Visualization
Dagstuhl Seminar 26361, Schloss Dagstuhl, Germany, August 31, 2026

Bidirectional Model of Visualization Literacy and Visual Attention
2025 Gordon Research Seminar on Visualization in Science and Education, Maine, USA

Invited Talks

Critical Thinking in Data Visualization
HCI Lab, Seoul National University, Seoul, South Korea, July 22, 2026

Teaching and Mentoring

Teaching Experience

Term	Institute	Subject Title	Role	Enrolled
Fall 2025	Georgia Tech	CS 4635: Knowledge-based AI	Teaching Assistant	160

Mentoring

Name	Degree	Year	Context
Sean Ru	M.S. in Computer Science (Georgia Tech)	2024–2025	Research collaboration
Yuanhong Zhou	M.S. in Computer Science (Georgia Tech)	2024–2025	Research collaboration

Academic Service

Conference Volunteering

Student Volunteer, IEEE VIS 2025, EuroVis 2025, VSS 2025

Invited Conference Reviewer

ACM CHI 2025, ACM CHI 2026, PacificVis 2026