

# Cindy Y. Xiong Bearfield

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Assistant Professor  
College of Computing, School of Interactive Computing  
Georgia Institute of Technology

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## Area of Expertise

Information Visualization, Human-Computer Interaction, Decision Making, Perception, Cognition

## Education

2021	Northwestern University	Ph.D. in Psychology
2021	Northwestern University	M.S. in Statistics
2018	Northwestern University	M.S. in Psychology
2016	UCLA	B.S. in Applied Mathematics B.A. in Psychology ( <i>minor: Environmental Engineering</i> )

## Research Positions

2024 –	Assistant Professor <b>Georgia Institute of Technology</b> College of Computing, School of Interactive Computing
2021 – 2023	Assistant Professor <b>University of Massachusetts Amherst</b> College of Information and Computer Sciences
2016 – 2021	Graduate Student, Northwestern Visual Thinking Lab Advisor: <b>Steven Franconeri</b>
2019	User Experience Researcher <i>Charting Visual Design Revolution, Graphics and Charting Image Processing, Signal Processing and Communications</i> <b>The MathWorks</b>

- 2015 – 2016    Research Assistant, UCLA Computational Vision and Learning Lab  
*Psychophysics, Computational Psychology Approach to Intuitive Physics*  
 Advisor: **Hongjing Lu**
- 2013 – 2016    Research Assistant, UCLA Civil and Environmental Engineering Jay Lab  
*Antibiotic Resistance in Airborne Bacteria*  
 Advisor: **Jenny Jay**
- 2012 – 2016    Research Assistant, UCLA Human Perception Lab  
*Perceptual Learning applied to Chemistry, Algebra & Music*  
 Advisor: **Phil Kellman**

### **International Visiting and Development**

- 2018            Visiting Scholar, Utrecht University, Utrecht, the Netherlands  
*Ambiguity in Graph Pattern Interpretation and Perspective Taking*  
 Host: **Lisanne van Weelden**
- 2018            Participant, Summer School on Computational and Mathematical Modeling of  
 Cognition, Couches, France  
*Perceptual Anchoring of Inferences from Dual-axis Graphs*  
 Advisor: **Casimir Ludwig**
- 2015            Research Assistant, Peking University, Beijing, China  
*Social Status and Its Relationship to Neural Responses to Fairness*  
 Advisor: **Xiaolin Zhou**

### **Selected Fellowships and Awards**

- 2024            IEEE PacificVis Conference Best Paper  
*(Top paper at IEEE PacificVis, also published by IEEE TVCG)*
- 2023            IEEE Computer Graphics and Application Best Paper Runner-Up  
*(Top three papers from IEEE CG&A published in 2022)*
- NSF CISE Medium (*IIS-HCC, \$1,198,084, Xiong's Share: \$514,987*)  
*Advancing Visualization Decision Support through Mitigating Confirmation Bias*
- NSF CAREER (*IIS-HCC, \$631,846*)  
*Designing Visualizations to Support Critical Thinking and Calibrated Trust in Data*
- Adobe Research Gift (*\$10,000*)

Dolby Research Gift (*\$40,000*)

UMass Amherst Public Interest Technology Initiative Fellowship

2022 IEEE VGTC Visualization Dissertation Award Honorable Mention

Adobe Research Gift (*\$10,000*)

MathWorks Research Gift (*\$12,500*)

IEEE VIS Honorable Mention for Best Poster Award  
(*One of three total awards given to poster submissions*)

ACM CHI Honorable Mention for Best Paper Award  
(*Top 5% of submitted papers*)

UMass Amherst Institute of Diversity Sciences Seed Grant (*\$15,000*)

2021 Adobe Research Gift (*\$10,000*)

UMass Amherst College of Social & Behavioral Sciences Research Support Grant  
(*\$14,000*)

2020 IEEE VIS Honorable Mention for Best Paper Award  
(*One of ten total awards given to full paper submissions*)

Northwestern University Career Development Award

2019 Psychonomics Society Graduate Travel Award  
(*One of twenty awards given to graduate student presenters*)

IEEE Doctoral Colloquium Fellowship

Northwestern Cognitive Science Travel Award

Northwestern TGS Conference Travel Award

2018 Northwestern Segal Design Research Fellowship

2018 Northwestern Psychology Summer Workshop Travel Award

2017 IEEE VIS Honorable Mention for Best Poster Award  
(*One of three total awards given to poster submissions*)

Northwestern Cognitive Science Advanced Fellowship

2016 Northwestern Cognitive Science Fellowship

## Refereed Conference Publications

- 2024 🏆 **Xiong Bearfield, C., van Weelden, L., Waytz, A., Franconeri, S. (2024)**  
**Same Data, Diverging Perspectives: The Power of Visualizations to Elicit Competing Interpretations.**  
IEEE PacificVis  
(Also published in a special issue in the IEEE journal Transactions on Visualization and Computer Graphics)  
DOI: 10.1109/TVCG.2024.3388515  
Acceptance rate: 11.5%  
[\*IEEE PacificVis Best Paper\*]
- Hu, S., Jiang, O., Riedmiller, J., **Xiong Bearfield, C. (2024)**  
**Motion-Based Visual Encoding Can Improve Performance on Perceptual Tasks with Dynamic Time Series.**  
IEEE Transactions on Visualization and Computer Graphics.  
Acceptance rate: 23.2%
- Knittel, C., Awuah, J., Franconeri, S., **Xiong Bearfield, C. (2024)**  
**Gridlines Mitigate Sine Illusion in Line Charts.**  
IEEE Transactions on Visualization and Computer Graphics.  
Acceptance rate: 31.9%
- Wang, H., Hoffswell, J., Thane, S., Bursztyn, V., **Xiong Bearfield, C. (2024)**  
**How Aligned are Human Chart Takeaways and LLM Predictions? A Case Study on Bar Charts with Varying Layouts**  
IEEE Transactions on Visualization and Computer Graphics.  
Acceptance rate: 23.2%
- 2023 Elhamdadi, H., Stefkovics, A., Beyer, J., Moerth, E., Pfister, H., **Xiong Bearfield, C., Nobre, C. (2023)**  
**Vistrust: a Multidimensional Framework and Empirical Study of Trust in Data Visualizations.**  
IEEE Transactions on Visualization and Computer Graphics.  
Acceptance rate: 25.8%
- Holder, E., **Xiong Bearfield, C. (2023).**  
**Polarizing Political Polls: How Visualization Design Choices Can Shape Public Opinion and Increase Political Polarization.**

IEEE Transactions on Visualization and Computer Graphics.  
Acceptance rate: 25.8%

Gaba, A., Kaufman, Z., Cheung, J., Shvaker, M., Hall, K., Brun, Y., **Xiong Bearfield, C.** (2023).  
**My Model is Unfair, Do People Even Care? Visual Design Affects Trust and Perceived Bias in Machine Learning.**  
IEEE Transactions on Visualization and Computer Graphics.  
Acceptance rate: 25.8%

2022 Gaba, A., Setlur, V., Srinivasan, A., Hoffswell, J., **Xiong, C.** (2022).  
**Comparison Conundrum and the Chamber of Visualizations: An Exploration of How Language Influences Visual Design.**  
IEEE Transactions on Visualization and Computer Graphics, IEEE VIS 2022.  
DOI: 10.1109/TVCG.2022.3209456  
Acceptance rate: 26.5%

**Xiong, C.**, Stokes, C., Kim, Y., & Franconeri, S. (2022).  
**Seeing What You Believe or Believing What You See? Belief Biases Correlation Estimation.**  
IEEE Transactions on Visualization and Computer Graphics, IEEE VIS 2022.  
DOI: 10.1109/TVCG.2022.3209405  
Acceptance rate: 26.5%

Holder, E., & **Xiong, C.** (2022).  
**Dispersion vs Disparity: Hiding Uncertainty Can Encourage Stereotyping When Visualizing Social Outcomes.**  
IEEE Transactions on Visualization and Computer Graphics, IEEE VIS 2022.  
DOI: 10.1109/TVCG.2022.3209377  
Acceptance rate: 26.5%

Mantri, P., Subramonyam, H., Michal, A., **Xiong, C.** (2022).  
**How Do Viewers Synthesize Conflicting Information from Data Visualizations?**  
IEEE Transactions on Visualization and Computer Graphics, IEEE VIS 2022.  
DOI: 10.1109/TVCG.2022.3209467  
Acceptance rate: 26.5%

🏆 **Xiong, C.**, Sarvghad, A., Goldstein, D., Hofman, J., & Demiralp, C. (2022).  
**Investigating Perceptual Biases in Icon Arrays.**  
Proceedings of the 2022 CHI Conference on Human Factors in Computing Systems.  
DOI:10.1145/3491102.3501874.  
Accepted first round, acceptance rate 12.5%  
[\*Best Paper Honourable Mention\*]

2021 **Xiong, C.**, Setlur, V., Bach, B., Lin, K., Koh, E., & Franconeri, S. (2021).

**Visual Arrangements of Bar Charts Influence Comparisons in Viewer Takeaways.**  
IEEE Transactions on Visualization and Computer Graphics, IEEE VIS 2021.  
DOI: 10.1109/TVCG.2021.3114823.  
Acceptance rate: 25.5%

2020 Ceja, C., McColeman, C., **Xiong, C.**, Franconeri, S. (2020).  
**Truth or Square: Aspect Ratio Biases Recall of Position Encodings.**  
IEEE Transactions on Visualization and Computer Graphics, InfoVis 2020.  
DOI: 10.1109/TVCG.2020.3030422  
Acceptance rate: 25.6%

🏆 Elliott M., Nothelfer, C., **Xiong, C.**, Albers Szafir, D. (2020).  
**A Design Space of Vision Science Methods for Visualization Research.**  
IEEE Transactions on Visualization and Computer Graphics, InfoVis 2020.  
DOI: 10.1109/TVCG.2020.3029413  
Acceptance rate: 25.6%

**[\*Best Paper Honourable Mention\*]**

**Xiong, C.**, van Weelden, L., Waytz, A., & Franconeri, S. (2020).  
**Same Graph, Different Conclusions: Perceptual Salience Drives Data Interpretation and Decision Making.**  
Proceedings to Society for Consumer Psychology, Hungtinton Beach, CA, 2020.  
Competitive Paper Submission, acceptance rate: 16%

2019 **Xiong, C.**, Shapiro, J., Hullman, J., & Franconeri, S. (2019).  
**Illusion of Causality in Visualized Data.**  
IEEE Transactions on Visualization and Computer Graphics, InfoVis, 2019.  
DOI: 10.1109/TVCG.2019.2934399  
Acceptance rate: 25.8%

**Xiong, C.**, Ceja, C., Ludwig, C., & Franconeri, S. (2019). **Biased Average Position Estimates in Line and Bar Graphs: Underestimation, Overestimation, and Perceptual Pull.**  
IEEE Transactions on Visualization and Computer Graphics, InfoVis, 2019.  
DOI: 10.1109/TVCG.2019.2934400  
Acceptance rate: 25.8%

2016 Bufford, C., Thai, K. P., Ho, J., **Xiong, C.**, Hines, C., & Kellman, P. (2016).  
**Perceptual learning of abstract musical patterns: Recognizing composer style.**  
Proceedings of the 14h Annual Conference of the International Conference for Music Perception and Cognition (pp. 8-12).

**Refereed Journal Publications**

- 2023 Stokes, C., **Bearfield**, C. X., & Hearst, M. A. (2023).  
**The Role of Text in Visualizations: How Annotations Shape Perceptions of Bias and Influence Predictions.**  
IEEE Transactions on Visualization and Computer Graphics.  
DOI: 10.1109/TVCG.2023.3338451
- Xiong, C.**, Stokes, C., Lovett, A., Franconeri, S. (2023)  
**What Does the Chart Say? Grouping Cues Guide Viewer Comparisons and Conclusions in Bar Charts**  
IEEE Transactions on Visualization and Computer Graphics.  
DOI: 10.1109/TVCG.2023.3289292
- 2022 **Xiong, C.**, Lee-Robbins, E., Zhang, I., Gaba, A., & Franconeri, S. (2022).  
**Reasoning Affordances with Tables and Bar Charts.**  
IEEE Transactions on Visualization and Computer Graphics.  
DOI: 10.1109/TVCG.2022.3232959
- Burns, A., On, T., Lee, C., **Xiong, C.**, Peck, E., Mahyar, N. (2022).  
**From Invisible to Visible: Impacts of Metadata in Communicative Data Visualization.**  
IEEE Transactions on Visualization and Computer Graphics.  
DOI: 10.1109/TVCG.2022.3231716
-  Wall, E., **Xiong, C.**, Kim, Y. (2022).  
**VisHikers' Guide to Evaluation: Competing Considerations in Study Design.**  
IEEE Computer Graphics and Applications, 2022.  
DOI: 10.1109/MCG.2022.3152676  
Invited article.  
[\*IEEE CG&A Best Paper Runner-Up\*]
- Yang, L. **Xiong, C.**, Wong, K., Wu, A., Qu, H. (2022).  
**Explaining with Examples: Lessons Learned from Crowdsourced Introductory Description of Information Visualizations.**  
IEEE Transactions on Visualization and Computer Graphics.  
DOI: 10.1109/TVCG.2021.3128157
- 2021 Burns, A., **Xiong, C.**, Franconeri, Cairo, A., S., Mahyar, N. (2021).  
**Designing with Pictographs: Envision Topics without Sacrificing Depth of Understanding.**  
IEEE Transactions on Visualization and Computer Graphics, 2021.  
DOI: 10.1109/TVCG.2021.3092680  
Acceptance rate: 24.6%
- Ajani, K., Lee, E., **Xiong, C.**, Knaflic, C. N., Kemper, W., Franconeri, S. (2021).

**Declutter and Focus: Empirically Evaluating Design Guidelines for Effective Data Storytelling.**

IEEE Transactions on Visualization and Computer Graphics.

DOI: 10.1109/TVCG.2021.3068337.

- 2019 **Xiong, C.**, van Weelden, L., & Franconeri, S. (2019).  
**The Curse of Knowledge in Data Visualizations.**  
*IEEE Transactions on Visualization and Computer Graphics.*  
DOI: 10.1109/TVCG.2019.2917689

**Lightly-Reviewed Workshop and Conference Papers**

- 2022 Elhamdadi, H., Gaba, A., Kim, Yea-Seul., **Xiong, C.** (2022).  
**How Do We Measure Trust in Visual Data Communication?**  
IEEE Vis BELIV Workshop, 2022.
- Elhamdadi, H., Padilla, L., **Xiong, C.** (2022).  
**Using Processing Fluency as a Metric of Trust in Scatterplot visualizations**  
IEEE Vis TREX Workshop, 2022.
- 2021 Burns, A., On, T., Lee, C., Shapiro, R., **Xiong, C.**, & Mahyar, N. (2021).  
**Making the Invisible Visible: Risks and Benefits of Disclosing Metadata in Visualization.**  
2021 IEEE Workshop on Visualization for Social Good (VIS4Good) (pp. 11-15).
- Ceja, C., & **Xiong, C.** (2021).  
**Show or Tell? Visual and Verbal Representations Bias Position Recall.**  
IEEE Vis VISxVISION Workshop, 2021.
- 2020 **Xiong, C.**, Stokes, C., Kim, Y., Franconeri, S.  
**See What You Want: Belief Biases Correlation Estimations.**  
OPAM 2020.
- Xiong, C.**, van Weelden, L., Waytz, A., & Franconeri, S.  
**Same Graph, Different Conclusions: Perceptual Salience Drives Data Interpretation and Decision Making.**  
Society for Consumer Psychology, 2020.
- Burns, A., **Xiong, C.**, Franconeri, Cairo, A., S., Mahyar, N. (2020).  
**How to Evaluate Data Visualizations across Different Levels of Understanding.**  
IEEE Vis BELIV Workshop, 2020.
- 2019 **Xiong, C.** (2019).



**Visualization Design to Afford Critical Thinking about Data.**

IEEE Transactions on Visualization and Computer Graphics, Doctoral Colloquium 2019.

**Xiong, C.**, Padilla, L., Grayson, K., Franconeri, S. (2019).

**Examining the Components of Trust in Map-Based Visualizations.**

EuroVis Workshop on Trustworthy Visualization (TrustVis) 2019, Portal, Portugal.

2017 **Xiong, C.**, van Weelden, L., & Franconeri, S.  
**The Power of Top-Down Salience in Data Visualizations.**  
OPAM, 2017.

**Xiong, C.**, van Weelden, L., & Franconeri, S., (2017).

**The Curse of Knowledge in Visual Data Communication.**

IEEE Transactions on Visualization and Computer Graphics, DECISIVE Workshop 2017.

2016 **Xiong, C.**, Kubricht, J., Lu, H.  
**A Computational Investigation into Intuitive Physics for Colliding Objects.**  
The 16<sup>th</sup> Annual Stanford Undergraduate Psychology Conference, Palo Alto, CA, 2016.

**Organized Conference Workshops, Panels and Symposiums**

2023 Nobre, C., **Xiong Bearfield, C.**, Levine, J., Wall, E., Moritz, D., Dimara, E.  
**Establishing and Thriving in an Academic Career.**  
IEEE VIS, 2023

2022 Nourani, M., Ragan, E., Karduni, A., **Xiong, C.**, Davis, B.  
**TREX: Workshop on TRust and EXpertise in Visualization.**  
IEEE VIS, 2022.

2021 **Xiong, C.**, Nothelfer, C., Elliott, M., Szafir, D.  
**VisXVision: Workshop on Novel Directions in Vision Science and Visualization Research.**  
IEEE VIS, 2021.

2019 Elliott M., Bylinskii, Z., Nothelfer, C., **Xiong, C.**, Albers Szafir, D.  
**VisXVision: Workshop on Novel Directions in Vision Science and Visualization Research.**  
IEEE VIS, 2019

**Xiong, C.**, Bylinskii, Z., Elliott M., Nothelfer, C., Albers Szafir, D.

**VISxVISION Workshop: Novel Vision Science Research Directions in**

**Visualization.** Vision Sciences Society Annual Meeting 2019 May, St. Pete Beach, Florida.

- 2018 Elliott M., Bylinskii, Z., Nothelfer, C., **Xiong, C.**, Albers Szafir, D.  
**Visualization Meets Vision Science.**  
Meetup at IEEE InfoVis 2018, Berlin, Germany.
- Nothelfer, C., Elliott M., Bylinskii, Z., **Xiong, C.**, Albers Szafir, D.  
**Vision and Visualization: Inspiring novel research directions in vision science.**  
Symposium at Vision Sciences Society Annual Meeting 2018 May, St. Pete Beach, Florida
- 2017 Nothelfer, C., Bylinskii, Z., Elliott, M., **Xiong, C.**, & Szafir, D.A.  
**Vision Science Meets Visualization.**  
Panel at IEEE InfoVis 2017, Phoenix, Arizona.
- Elliott, M., Nothelfer, C., & **Xiong, C.**  
**VSSxVIS: Information Visualization Research.**  
Panel at Vision Sciences Society Annual Meeting 2017 May, St. Pete Beach, Florida.

### Refereed Poster Presentations

- 2024 Lin, K., Ru, S., Rapp, D., Guan, H., **Xiong Bearfield, C.**  
**What Makes a Visualization Visually Complex? Exploring Design Features Related to Visual Complexity**  
IEEE VIS 2024.
- Elhamdadi., H., Islam, M., Mitra, S., Burhanuddin, I., Yu, T., Meliou, A., **Xiong Bearfield, C.**  
**Contrasting Diverse, Probabilistic, and Visualization-Based Data Selection Methods for Visual Analytics**  
IEEE VIS 2024.
- Chang, M., Lee, S., Cho, A., Jeon, H., Park, S., **Xiong Bearfield, C.**, Seo, J.  
**Efficiently Crowdsourcing Visual Importance with Punch-Hole Annotation**  
IEEE VIS 2024.
- Ru, S., Lin, K., Rapp, D., Guan, H., Xiong Bearfield, C.  
**Charting Complexity: How Chart Types Relate to Visual Complexity**  
IEEE VIS 2024.
- Hu, S., Jiang, O., Riedmiller, J., Xiong Bearfield, C.  
**Perceptual Benefits of Animation are Task-Dependent: Effects of Staging and Tracing in Dynamic Displays**  
Vision Science Society 2024.

- 2023 Lin, K., Rapp, D., & Xiong Bearfield, C.  
**Visual Complexity Impacts Reader Confidence and Comprehension in Data Visualizations.**  
Psychonomics 2023.
- 2022 Stokes, C., Xiong, C., Hearst, M.  
**Driving Reader Interpretations with Text Annotations in Data Visualizations**  
Society for Judgment and Decision Making Annual Conference 2022.
-  Elhamedi, H., Padilla, L., Xiong, C.  
**Processing Fluency improves Trust in Scatterplot Visualizations.**  
IEEE VIS, 2022.  
**[\*Best Poster Honourable Mention]**  
(Top 3 poster submissions)
- Savalia, T., Ceja, C., Cowell, R., Xiong, C.  
**Data Shape and Response Modalities Can Bias Estimations of Average Data Location in Visualizations.**  
VSS 2022.
- 2022 Lin, K., Rapp, D., Xiong, C.  
**Attempts to Augment Refutation Text Benefits with Visualizations.**  
Northwestern University Undergraduate Research Expo.
- 2021 Ceja, C., & Xiong, C.  
**Show or Tell? Visual and Verbal Representations Bias Position Recall.**  
IEEE VIS, 2021.
- Xiong, C., Stokes, C., Franconeri, S.  
**Visual Salience and Grouping Cues Guide Relation Perception in Visual Data Displays.**  
VSS 2021.
- 2019 Xiong, C., Ceja, C., Ludwig, C., & Franconeri, S. L.  
**Position Estimation Illusions in Visualized Data: Underestimation, Overestimation and Perceptual Pull.**  
OPAM, 2019, Montreal, Canada.
- Xiong, C., Lee, E., & Franconeri, S.  
**Confirmation Bias in Graphical Displays.**  
Society for Judgment and Decision Making, 2019, Montreal, Canada.
-  Xiong, C., van Weelden, L., & Franconeri, S.

**Same Data, Diverging Conclusions: Perceptual Salience Drives Data Interpretation.**  
Psychonomics 2019.

[\*Graduate Travel Award\*] awarded to 20 students.

Ceja, C., McColeman, C., **Xiong, C.**, & Franconeri, S.  
**Position Estimates in Bar Graphs: Error and Bias.**  
IEEE VIS, 2019.

**Xiong, C.**, Ceja, C., Ludwig, C., & Franconeri, S. L.  
**Attraction and Response Probe Similarity Effects in a Multiple Ensemble  
Judgment Task.**  
VSS 2019.


Lee, J., **Xiong, C.**, Ceja, C., & Franconeri, S. L.  
**Perceptual Bias in Object Position Estimates in Data Visualization.**  
28<sup>th</sup> UCLA Psychology Undergraduate Research Conference, Los Angeles CA, USA.

Lin, K., Salovich, N. A., **Xiong, C.**, Franconeri, S. L., & Rapp, D. N.  
**Controversial Topics Increase Skepticism of Data Visualizations.**  
Chicago Area Undergraduate Research Symposium, Chicago, IL, USA.

2018 **Xiong, C.**, Ludwig, C., Ceja, C., & Franconeri, S.  
**Perceptual Anchoring of Inferences from Dual-axis Graphs.**  
Fifth European Summer School on Computational and Mathematical Modeling of  
Cognition 2018 July, Couches, France.

**Xiong, C.**, Ceja, C., Lee, J., Franconeri, S.  
**Perceptual Anchoring of Graph Element Positions in Dual-Axis Graphs.**  
Poster presented at Fifth European Summer School on Computational and  
Mathematical Modeling of Cognition 2018 July, Couches, France.

2017 **Xiong, C.**, van Weelden, L., & Franconeri, S.  
**Graphs as Ambiguous Figures.**  
VSS 2018.

 **Xiong, C.**, van Weelden, L., & Franconeri, S.,  
**The curse of knowledge in visual data communication.**  
IEEE VIS, 2017.  
[\*Best Poster Honourable Mention]  
(Top 3 poster submissions)

2016 Hines, C.A., Ho, J., **Xiong, C.**, Bufford, C. A., Thai, K. P., & Kellman, P. J.  
**Perceptual learning intervention improved abstract musical pattern recognition.**  
25<sup>th</sup> UCLA Psychology Undergraduate Research Conference, Los Angeles CA, USA.

2015 Ho, J., **Xiong, C.**, Bufford, C. A., Thai, K. P., & Kellman, P. J.  
**Perceptual Learning of Musical Abstract Patterns.**  
 Berkeley Interdisciplinary Research Conference for Undergraduates, Berkeley, CA, USA.

## Teaching Experience

### *Lecturer*

2025 Spring	Intro to Information Visualization	Georgia Tech
	Data Visualization: Principles and Applications	Georgia Tech
2024 Summer	Data Visualization and Exploration	UMass Amherst
2024 Spring	Intro to Information Visualization	Georgia Tech
2023 Spring	Intro to User Experience Research	UMass Amherst
2022 Fall	Making Sense of Visual Data: Human Perception, Attention, and Information Visualization	UMass Amherst
2022 Spring	Intro to User Experience Research	UMass Amherst
2020 Fall	Decision Making	Northwestern University

### *Teaching Assistant*

2019 Fall	Developmental Psychology	Northwestern University
2017 Fall	Developmental Psychology	Northwestern University
2017 Spring	Decision Making	Northwestern University
2017 Winter	Brain Damage and the Mind	Northwestern University
2015 Winter	Introduction to Psychology	UCLA

## Invited Talks

2024 Oct	University of Maryland	College Park, MD
Sept	University of Stuttgart	Stuttgart, Germany
Sept	Dagstuhl seminar on AI + Human Intelligence	Dagstuhl, Germany
May	<a href="#">COGGRAPH</a> Lecture	Virtual
Feb	University of Utah	Virtual
2023 May	UCLA	Los Angeles, CA
Mar	New York University	New York City, NY
Mar	Columbia University	New York City, NY
Feb	Northeastern University	Boston, MA
Jan	Georgia Institute of Technology	Atlanta, GA
Jan	Emory University	Atlanta, GA
2022 Sept	University of Illinois Urbana-Champaign	Virtual
June	ETVIS Workshop on eye tracking and visualization (keynote)	Virtual
May	IT World Canada Digital Transformation Conference	Virtual
Apr	University of Massachusetts, Amherst HCI Seminar	Amherst, MA
2021 Nov	Brown University	Providence, RI

<i>Nov</i>	People Analytic RoundTable Milwaukee HCA	Virtual
<i>Oct</i>	People Analytics Conference by the Conference Board	Virtual
<i>Oct</i>	Department of Psychology, UMass Amherst	Amherst, MA
<i>Aug</i>	Southern California People Analytics Meetup	Virtual
<i>Jun</i>	Conference on Computer Vision and Pattern Recognition CQA Workshop	Virtual
<i>Feb</i>	Adobe Workshop at Northwestern University	Virtual
<i>Feb</i>	Yale University Behavioral Finance Reading Group	Virtual
2020 <i>Jun</i>	National Bureau of Economic Research	Virtual
<i>Apr</i>	University of Massachusetts, Amherst	Amherst, MA
<i>Feb</i>	Microsoft Research	New York City, NY
<i>Jan</i>	University of Michigan, Ann Arbor	Ann Arbor, MI
2019 <i>Nov</i>	University of Massachusetts, Amherst	Amherst, MA
<i>Nov</i>	University of Massachusetts, Boston	Boston, MA
<i>Nov</i>	Wellesley College	Wellesley, MA
<i>Nov</i>	Northeastern University	Boston, MA
<i>Nov</i>	University Washington	Seattle, WA
<i>Oct</i>	Tableau	Seattle, WA
<i>Oct</i>	University of British Columbia	Vancouver, Canada
<i>Oct</i>	Columbia University	New York City, NY
<i>Oct</i>	New York University	New York City, NY
<i>Sept</i>	Brown University	Providence, RI
<i>Aug</i>	Tufts University	Medford, MA
<i>July</i>	The MathWorks	Natick, MA
<i>June</i>	Northwestern University Design Cluster	Evanston, IL
<i>Mar</i>	Northwestern University Kellogg School of Management	Evanston, IL
2018 <i>Nov</i>	Northwestern University R User Group	Evanston, IL
<i>Feb</i>	Northwestern University HCI Group	Evanston, IL

## Professional Services

### *Academic Service*

2023 –	Guest Editor Journal of Perceptual Imaging
2024	Advisory Council Member Harvard Business Review
2024	General Paper Chair Eye Tracking and Visualization (ETVIS'24) at ETRA 2024
2024 –	Publication Chair IEEE VIS Organizing Committee

- 2023 – Consulting Editor  
Cognitive Research: Principles & Implications (Impact Factor: 4.1)
- 2022 – NIST (National Institute of Standards and Technology)  
Organization of Scientific Area Committees for Forensic Science  
Human Factors Task Group Affiliate
- 2022 – IEEE VGTC (Visualization and Graphics Technical Community)  
Executive Committee, Secretary
- 2017 – 2023 Co-Founder and Organizer  
VISxVISION initiative ([visxvision.com](http://visxvision.com))
- 2023 Meet-Up Chair  
IEEE VIS Organizing Committee
- Session Chair, Full Paper  
Perception.  
IEEE VIS in Melbourne, Australia
- Steering Committee Member,  
VISxVISION Workshop at IEEE VIS in Melbourne, Australia
- 2022 Co-Chair  
IEEE VIS Workshop on TRust and EXpertise in Visual Analytics (TRES)
- Session Chair, Short Paper  
Personal Visualization, Theory, Evaluation, and eXtended Reality  
IEEE VIS
- 2021 Session Chair, Full Paper  
Studies and Evaluation Methodology.  
IEEE VIS
- Co-Chair  
IEEE VIS Workshop on Vis X Vision at IEEE
- 2020 Session Chair, Short Paper  
Theory, Cognition, & Sensemaking.  
IEEE VIS
- 2019 Publication Volunteer  
IEEE VIS 2019 Workshop on Vis X Vision at IEEE InfoVis

Co-Chair  
IEEE VIS 2019 Workshop on Vis X Vision at IEEE InfoVis

Advisory Group  
Journal of Vision, *Special Issue on Visualization*

Organizer  
VSS 2019 Workshop on Vis X Vision at Vision Science Society, 2019

2018 Organizer  
VSS 2018 Symposium *Inspiring Novel Research Directions in Vision Science*

Organizer  
IEEE InfoVis 2018 *Visualization Meets Vision Science Meetup*

2017 Organizer  
IEEE InfoVis 2017 *Visualization Meets Vision Science Panel*

Organizer  
VSS 2017 *Information Visualization Research Panel*

2016 Editor  
UCLA *The Undergraduate Research Journal of Psychology*, Spring 2016 Issue

**Program Committee**

2023 IEEE VIS Full Paper  
PacificVis Full Paper (Journal Track)

2022 IEEE VIS Full Paper  
IEEE VIS Short Paper

EuroVis Short Paper

2021 EuroVis Short Paper  
IEEE VIS Short Paper

2020 ACM Creativity and Cognition  
IEEE VIS Short Paper

**Ad-Hoc Reviewer**

ACM CHI: Human Factors in Computing Systems  
ACM Symposium on Eye Tracking Research & Applications  
Attention, Perception & Psychophysics  
Cognitive Neurodynamics  
Cognitive Science Society  
IEEE Computer Graphics and Applications  
Current Directions in Psychological Science  
IEEE Computer Graphics and Applications



IEEE Transactions on Visualization and Computer Graphics  
Scientific Reports

*University and Departmental Service*

- 2024 – 2025 Visual Analytics Area Head  
Georgia Tech School of Interactive Computing
- Hiring Committee  
Georgia Tech School of Interactive Computing
- 2022 – 2023 Informatics Search Committee  
College of Information and Computer Sciences, UMass Amherst
- 2022 – 2023 Executive and Budget Committee  
College of Information and Computer Sciences, UMass Amherst
- 2022 – 2023 UMass Amherst CICS New Building Working Group/Committee  
College of Information and Computer Sciences, UMass Amherst
- 2022 Chair Search Committee  
College of Information and Computer Sciences, UMass Amherst
- 2021 Ph.D. Admissions Committee  
College of Information and Computer Sciences, UMass Amherst
- 2018 Coordinator for Ph.D. Interviews  
Department of Psychology Northwestern University
- 2018 – 2019 Brownbag Colloquium Coordinator  
Department of Psychology Northwestern University

*Outreach*

- 2022 Panelist at Empow(H)erment  
College of Information and Computer Sciences, UMass Amherst
- 2021 Submission Judge for Hack(her)thon  
College of Information and Computer Sciences, UMass Amherst
- 2019 Panelist  
Northwestern University Graduate Diversity and Inclusion Committee
- 2017 – 2019 Mentor

## Northwestern Psychology Graduate Student Mentorship Program

- 2017 Application Reviewer, Sneak Peek Program,  
Northwestern University
- 2016 – 2018 Science Fundraiser Volunteer,  
Illinois Science Council
- 2018 Coordinator,  
Northwestern Department of Psychology Prospective Visit
- 2015 – 2016 Committee Member  
UCLA Common Book Committee

### Grant Reviewing

- Ad-hoc Reviewer, NSF Decision, Risk and Management Sciences,  
Ad-hoc Reviewer, NSF Perception, Action & Cognition  
Panel Reviewer, NSF IIS-HCC

### Doctoral Students Mentored

- 2023 – Songwen Hu  
2023 – Kylie Lin  
2023 – Yixuan Li  
2023 – Ouxun Jiang  
2023 – Will Wang  
2022 – Zafeiria Moumoulidou  
2022 – Zhanna Kaufman  
2021 – Aimen Gaba  
2021 – Hamza Elhamdadi  
2021 – Shiyao Li  
2023 – 2024 Jane Awuah  
2023 – 2024 Hayong Song  
2022 – 2024 Tejas Savalia  
2022 – 2023 Misha Oraa Ali  
2021 – 2022 Prateek Mantri  
2021 – 2022 Maliha Islam  
2021 – 2022 Alyxander Burns

### Undergraduate and Masters Students Mentored

- 2024 Sean Ru  
2023 – 2024 Sydney Stratis  
2023 – 2024 Marie Shvakel  
2022 – 2024 Will Huichen Wang  
2023 Matteo Mastandrea  
2021 – 2023 Jason Cheung

2021 – 2022 Christiana Lee  
2021 – 2022 Tiffany Lou  
2020 – 2023 Kylie Lin  
2021 – 2023 Guilherme Santos Rocha  
2022 – 2023 Jocelyn Velazquez  
2022 – 2023 Erin Melia  
2022 – 2023 Lily Thai Edmonds  
2022 – 2023 Bhoomika Raj Ethakota  
2022 Nisarga Patil  
2022 Gaby Nugent  
2022 Lynn Li  
2021 – 2022 Rinija Raja  
2021 – 2022 Thai On  
2020 – 2021 Sarah Stoiber  
2020 – 2021 Rachel Shapiro  
2020 – 2021 Meghna Jain  
2019 – 2021 Madison Tyrcha  
2019 – 2020 Gabriel Belkind-Gerson  
2017 – 2021 Chase Stokes  
2017 – 2020 Jun Lee  
2017 – 2018 Emily Manheimer  
2017 – 2018 Chase Bednarz  
2016 – 2017 Sara Malik

### **M.S. / Ph.D. Thesis Committees**

2023 – Zafeiria Moumoulidou  
2024 – Hamza Elhamadi  
2024 – Aimen Gaba  
2024 – Adam Coscia  
2024 – Yu Fu  
2023 – 2024 Hayeong Song (Computer Science Ph.D.)  
2022 – 2024 Melanie Bancilhon (Computer Science Ph.D.)  
2022 – 2023 Jimin Park (Psychology Ph.D.)  
2022 – 2023 Misha Oraa Ali (Psychology M.S.)  
2021 – 2023 Sandarsh Pandey (Psychology Ph.D.)  
2021 – 2022 Alyxander Burns (Computer Science Ph.D.)