Chase Stokes

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I am a mixed methods researcher examining the challenges and opportunities presented by communicating data and information. My work is situated at the intersection of language and visualization, specifically considering the use and impact of text elements in visual designs.

EDUCATION

PhD. in Information Science | University of California Berkeley *2021 – present*
Dissertation: Combining Text and Visuals for Effective Data Communication
Advisor: Professor Marti Hearst

Northwestern University *2017 - 2021*
B.A. in Psychology and Gender and Sexuality Studies | GPA: 3.9/4.0, Magna Cum Laude
Advisor: Professor Steven Franconeri

RESEARCH EXPERIENCE

University of California Berkeley | Berkeley, CA *2021 – present*
Graduate Student Researcher

Northeastern University | Oakland, CA *Summer 2024*
Temporary Research Assistant

Tableau Research at Salesforce | Palo Alto, CA *Summer 2023*
Research Intern

Northwestern University | Evanston, IL *2018 – 2021*
Undergraduate Research Assistant

The Family Institute at Northwestern University *2019-2021*
Undergraduate Research Assistant

PUBLICATIONS

2024

Stokes, C., Hu, C., & Hearst, M.A. (2024). "It's a Good Idea to Put It Into Words": Writing `Rudders' in the Initial Stages of Visualization Design. *IEEE Transactions on Visualization and Computer Graphics.* 1-11. https://doi.org/10.1109/TVCG.2024.3456324

Stokes, C., Sanker, C., Cogley, B., & Setlur, V. (2024). From Delays to Densities: Exploring Data Uncertainty through Speech, Text, and Visualization. In *Computer Graphics Forum, 43*(3), e15100. https://doi.org/10.1111/cgf.15100

Stokes, C., Sanker, C., Cogley, B., & Setlur, V. (2024). Mixing Modes: Active and Passive Integration of Speech, Text, and Visualization for Communicating Data Uncertainty. *Computer Graphics Forum*. https://doi.org/10.2312/evs.20241072

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, 30*(10), 6787-6800. https://doi.org/10.1109/tvcg.2023.3338451

Bearfield, C. X., **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, 30*(8), 5097-5110. https://doi.org/10.1109/TVCG.2023.3289292

2022 **Stokes, C.,** Setlur, V., Cogley, B., Satyanarayan, A., and Hearst, M.A. (2022). Striking a Balance: Reader Takeaways and Preferences when Integrating Text and Charts. *IEEE Transactions on Visualization and Computer Graphics, 29*(1), 1233-1243. https://doi.org/10.1109/TVCG.2022.3209383

Xiong, C., **Stokes, C.,** Kim, Y. S., & Franconeri, S. (2022). Seeing What You Believe or Believing What You See? Belief Biases Correlation Estimation. *IEEE Transactions on Visualization and Computer Graphics, 29*(1), 493-503. https://doi.org/10.1109/TVCG.2022.3209405

WORKSHOP PAPERS

2025 Lin, K., **Stokes, C.**, and Bearfield, C.X. (2025) LLMs Are Not Reliable Human Proxies to Study Affordances in Data Visualizations, in *Proceedings of the 2025 CHI Conference on Human Factors in Computing Systems, HEAL Workshop.*

2024 **Stokes, C.,** Sanker, C., Cogley, B., and Setlur, V. (2024). Voicing Uncertainty: How Speech, Text, and Visualizations Influence Decisions with Data Uncertainty, in *Proceedings of IEEE Transactions on Visualization and Computer Graphics, Uncertainty Workshop,* 17-27. https://doi.org/10.1109/uncertaintyvis63963.2024

2022 **Stokes, C.,** and Hearst, M.A. (2022). Why More Text is (Often) Better: Themes from Reader Preferences for Integration of Charts and Text, in *Proceedings of IEEE Transactions on Visualization and Computer Graphics, NLVIZ Workshop.*

2021 **Stokes, C.,** and Hearst, M.A. (2021). Give Text A Chance: Advocating for Equal Consideration for Language and Visualization, in *Proceedings of IEEE Transactions on Visualization and Computer Graphics, NLVIZ Workshop.*

POSTER PRESENTATIONS

2025 **Stokes, C**. (2024). Considerations for Generating Text to Communicate Data Insights Effectively. Poster presented at the Spring 2025 EPIC Lab Advance.

2024 **Stokes, C**. (2024). Combining Text and Visuals for Effective Data Communication. Presentation at the Doctoral Colloquium at 2024 IEEE VIS Conference.

Stokes, C. (2024). Writing as a Tool in Visualization Design. Poster presented at the Fall 2024 EPIC Lab Advance.

2022 **Stokes, C.,** Xiong, C., & Hearst, M.A. (2022). Driving Reader Interpretations with Text Annotations in Data Visualizations. Poster presented at Society for Judgement

and Decision Making, San Diego, CA.

Stokes, C. (2024). Striking a Balance: Reader Takeaways and Preferences when Integrating Text and Charts. Poster presented at the Fall 2022 EPIC Lab Advance.

2021 Xiong, C., **Stokes, C.,** Lovett, A., & Franconeri, S. (2021). Visual Salience and Grouping Cues Guide Relation Perception in Visual Data Displays. Poster presented at Virtual Vision Sciences Society.

2020 **Stokes, C.,** Xiong, C., & Franconeri, S. (2020). Seeing What You Want: Prior Belief Biases Perception of Correlation in Scatterplots. Poster presented at Virtual 32nd APS Annual Convention, Chicago, IL.

Callahan, C., **Stokes, C.,** & Lawrence, E. (2020). Modifying the Relationship Quality Interview for Sexual and Gender Minority Couples. Accepted Poster Presentation at the 8th Annual LGBTQ Research Symposium at the University of Illinois at Urbana-Champaign. (Conference canceled due to COVID-19)

TEACHING EXPERIENCE

University of California Berkeley | Berkeley, CA
Reader/Teaching Assistant *Spring 2025*
Graduate Student Instructor *Spring 2023*
INFO 247: Information Visualization and Presentation

INVITED TALKS

CS 4460: Introduction to Information Visualization | Atlanta, GA
Georgia Institute of Technology
Guest Lecture: Text Visualization and Text in Visualization *February 2025*

Cognition and Visualization Lab | Atlanta, GA
Emory University
Guest Lecture: Text Visualization and Text in Visualization *February 2025*

EPIC Lab Retreat |Berkeley, CA
University of California, Berkeley
Writing as a Tool in Visualization Design *October 2024*

EPIC Lab Retreat |Berkeley, CA
University of California, Berkeley
The Role and Ramifications of Text *October 2024*

Decision Making with Uncertainty Lab Meeting | Virtual
University of Washington
Combining Language and Visualization *January 2023*

FELLOWSHIPS, AWARDS, AND GRANTS

Fellowships

NSF Graduate Research Fellowship Program Recipient *2023 – 2026*
Ford Foundation Predoctoral Fellowship Honorable Mention *2023*
School of Information Fellowship for Doctoral Study *2021 – 2022*

Awards
Outstanding Graduate Student Instructor *Spring 2023*
Grants
Northwestern Summer Undergraduate Research Grant ($3,500) *Summer 2020*
Visual Grouping Affords Different Comparison Patterns in Visualized Data
Northwestern Academic Year Research Grant ($1,000) *2020*
Variations in Conclusions Afforded by Chart Type

STUDENT LEADERSHIP ROLES

Applicant Feedback Program *2023 – present*
Coordinated initiative to provide feedback to 100+ prospective PhD. applicants

NorCal Visualization Group Organizer *2022 – 2023*
Organized 6 unique speakers for hour-long seminars

STUDENT MEMBERSHIPS

Association for Computing Machinery, Student Member *2021 – present*
Psychonomic Society, Student Member *2021 – present*
Cognitive Science Society, Student Member *2021 – 2024*
Society for Judgment and Decision Making, Student Member *2021 – 2023*

AD-HOC REVIEWS

ACM Computer-Human Interaction (CHI) *2022 - 2025*
Transactions on Visualization and Computer Graphics (TVCG) *2023 – 2025*
PacificVIs: VisNotes *(Program Committee)* *2025*
Journal of Computational Social Science *2024*
Ocean and Coastal Research *2023*
Journal of Official Statistics *2023*
IEEE VIS Short Papers *2022*
Creativity & Cognition *2021*

SERVICE AND OUTREACH

Student Volunteer at IEEE VIS *2022*

25th Anniversary of the Master of Information Management and Systems *2022*
Facilitated two 30-minute panels

REFERENCES PROVIDED UPON REQUEST