# **Chase Stokes**

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I am a mixed methods researcher situated at the intersection of language and visualization. My work focuses on the challenges and opportunities presented by communicating data and information, examining the use and impact of text elements in design.

### **EDUCATION**

PhD. in Information Science

2021 – present

University of California at Berkeley

Advisor: Marti Hearst, PhD.

Relevant coursework: HCI Research, UX Research, Information

Visualization and Presentation, Experiments and Causal

Inference, Computational Social Science

B.A. in Psychology and Gender and Sexuality Studies

2021

Northwestern University, GPA 3.92 Advisor: Steven Franconeri, PhD.

# RESEARCH EXPERIENCE

Graduate Student Researcher

2021 – present

Hearst Lab, UC Berkeley

Temporary Research Assistant

Summer 2024

Northeastern University, Khoury College

Research Intern

Summer 2023

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**Undergraduate Research Assistant** 

2018 - 2021

Visual Thinking Lab, Northwestern University

Data Collector Summer 2021

Couple and Family Development Lab, The Family Institute at Northwestern University

**Undergraduate Research Assistant** 

2019 - 2021

Couple and Family Development Lab, The Family Institute at Northwestern University

Undergraduate Summer Intern

Summer 2019

Couple and Family Development Lab, The Family Institute at Northwestern University

## **PUBLICATIONS**

- **Stokes, 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.*
- **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. <a href="https://doi.org/10.1111/cgf.15100">https://doi.org/10.1111/cgf.15100</a>
- **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
- **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. <a href="https://doi.org/10.1109/tvcg.2023.3338451">https://doi.org/10.1109/tvcg.2023.3338451</a>
- 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
- **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**

- **Stokes, C.,** Sanker, C., Cogley, B., and Setlur, V. (2024). Voicing Uncertainty: How Speech, Text, and Visualizations Influence Decisions with Data Uncertainty, in Uncertainty Workshop, *IEEE Transactions on Visualizations and Computer Graphics*
- **Stokes, C.,** and Hearst, M.A. (2022). Why More Text is (Often) Better: Themes from Reader Preferences for Integration of Charts and Text, in NLVIZ Workshop, *IEEE Transactions on Visualization and Computer Graphics*.
- **Stokes, C.,** and Hearst, M.A. (2021). Give Text A Chance: Advocating for Equal Consideration for Language and Visualization, in NLVIZ Workshop, *IEEE Transactions on Visualization and Computer Graphics*.

### POSTERS AND PRESENTATIONS

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

- **Stokes, C.,** Xiong, C., & Hearst, M.A. (2022, Nov). Driving Reader Interpretations with Text Annotations in Data Visualizations. Poster presented at Society for Judgement and Decision Making, San Diego, CA.
- Xiong, C., **Stokes, C.**, Lovett, A., & Franconeri, S. (2021, May). Visual Salience and Grouping Cues Guide Relation Perception in Visual Data Displays. Poster presented at Virtual Vision Sciences Society.
- **Stokes, C.,** Xiong, C., & Franconeri, S. (2020, May). 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, May). 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)

# FELLOWSHIPS, AWARDS, AND HONORS

FELLOWSHIPS, AWARDS, AND HONORS	
Fellowships	
NSF Graduate Research Fellowship Program Recipient	2023 – present
Ford Foundation Predoctoral Fellowship Honorable Mention	2023
School of Information Fellowship for Doctoral Study	2021 – 2022
Awards	
National Merit Finalist	2017 – 2021
Honors	
Departmental Honors - Psychology	2021
Phi Beta Kappa	2021
Northwestern University Dean's List with Distinction	2017 – 2021
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	
Underrepresented Applicant Feedback Program	2023
Co-coordinated initiative to provide feedback to underrepresented PhD. ap	pplicants
NorCal Visualization Group Organizer	2022 – 2023
Organized 6 unique speakers for hour-long seminars	
Trainings Chair	2019 – 2020
Masculinity, Allyship, Reflection, and Solidarity (M.A.R.S.)	

Participant Coordinator, Pre-Orientation Program Coordinator Alternative Student Breaks (A.S.B.)	2019 – 2020 2018 – 2019
Programming Committee Rainbow Alliance	2018 – 2019
STUDENT MEMBERSHIPS	
Association for Computing Machinery, Student Member Psychonomic Society, Student Member Cognitive Science Society, Student Member Society for Judgment and Decision Making, Student Member	2021 – present 2021 – present 2021 – present 2021 – present
AD-HOC REVIEWS	
ACM Computer-Human Interaction (CHI) Transactions on Visualization and Computer Graphics (TVCG) Ocean and Coastal Research Journal of Official Statistics IEEE VIS Short Papers Creativity & Cognition	2022 - 2024 2023 - 2024 2023 2023 2022 2021
SERVICE AND OUTREACH	
PhD. Applicant Feedback Program Coordinated program providing feedback to underrepresented applicants.	2022 - 2024
Student Volunteer at IEEE VIS	2022
25th Anniversary of the Master of Information Management and Systems Facilitated two 30-minute panels	2022
Washington University School of Medicine Mini-Medical School Panelist	2019, 2021
Alternative Student Breaks	2017 – 2019
College Mentors for Kids	2017 – 2019