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| Chase Stokes | |
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**I'm a mixed methods researcher specializing in data visualization; my work explores how best to combine written and visual information in both academic and applied settings.** Through rigorous empirical experiment design and advanced statistical analyses, I develop actionable insights to empower teams to effectively communicate complex data.

**EDUCATION**

**PHD IN INFORMATION SCIENCE | UNIVERSITY OF CALIFORNIA BERKELEY** *2021 – [est.] Aug 2025.*

Dissertation: Combining Text and Visuals for Effective Data Communication

Advisor: Professor Marti Hearst

Relevant Coursework: User Experience Research, Information Visualization and Presentation, Experiments and Causal Inference, Computational Social Science, Applied Natural Language Processing, Generative AI

**NORTHWESTERN UNIVERSITY** *2017 - 2021*

B.A. in Psychology and Gender Studies | GPA: 3.9/4.0, Magna Cum Laude, Dean’s List all quarters

Advisor: Professor Steven Franconeri

**WORK**

**UNIVERSITY OF CALIFORNIA BERKELEY |** Berkeley, CA *2021- Present*

*Graduate Student Researcher*

* Designed and executed 3 pre-registered crowdsourced studies with 1,600+ participants; applied advanced statistical analysis; delivered actionable design recommendations for data storytelling
* Conducted 2 semi-structured interview studies with 39 visualization designers; evaluated written interventions for visualization design; proposed recommendations for user-centered design practices
* Published and led 6 peer-reviewed papers; presented novel research at top-tier academic conferences, disseminating critical research findings for visualization design
* Directed 5 research teams and mentored 4 undergraduate and graduate students to develop and conduct innovative research at the forefront of data communication

**BECISE PRESENTATIONS |** Chicago, IL *Summer 2025*

*Applied AI Solutions Intern*

* Built a 6-class image classification pipeline using a multi-stage random forest approach, boosting accuracy from 74% to 88% by combining one-vs-rest binary classifiers with a base multi-class model
* Developed a rule-based algorithm to size charts and tables by factoring in text content and fixed layout bounds, ensuring clear data presentation from images
* Designed a multi-agent chained workflow with Azure OpenAI and Google Apps Script for progressive summarization, structured output generation, and semantic interpretation of semi-structured text content

**TABLEAU RESEARCH AT SALESFORCE |**Palo Alto, CA *Summer 2023*

*PhD Research Intern*

* Spearheaded 2 crowdsourced studies with 800+ participants; synthesized recommendations for use of multimodal data representations grounded in practical decision-making
* Engineered and evaluated 2 interactive prototypes for multimodal data presentation; conducted user studies with 20 participants; developed recommendations for use of speech and animation in data communication
* Filed patent pending for innovative data presentation technology incorporating text, visualization, and speech information to support decision-making under uncertainty
* Published 3 papers in peer-reviewed journals; delivered impactful presentations to senior research leadership to inform multimodal features

**UNIVERSITY OF CALIFORNIA BERKELEY |** Berkeley, CA *Spring 2023*

*Graduate Student Instructor*

* Developed and instructed 14 educational modules for visualization tools, including Tableau, d3.js, Observable Plot, and Figma; improved student ability in code and no-code environments
* Created hands-on coding exercises and tutorials for web-based data visualization; equipped students with practical skills to create interactive visualizations with industry-standard tools
* Led 2 graduate-level lectures as interim professor; delivered advanced content on misleading visualization techniques and perceptual foundations for visualization design guidelines

**SELECT PUBLICATIONS**

**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). 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.,** Setlur, V., Cogley, B., Satyanarayan, A., & 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), 493-503. <https://doi.org/10.1109/TVCG.2022.3209405>

**FELLOWSHIPS AND INVOLVEMENT**

**NATIONAL SCIENCE FOUNDATION** *2023 - present*

*National Science Foundation Graduate Research Program Fellowship Recipient*

**FORD FOUNDATION** *2023*

*Ford Foundation Predoctoral Fellowship Honorable Mention*

**APPLICANT FEEDBACK PROGRAM** *2022 - present*

*Coordinator; organized 20 PhD student volunteers to provide unique feedback to 60+ prospective applicants*

**SKILLS**

**Programming and Design**: R, Python, D3.js, Figma, Tableau, JavaScript, HTML/CSS, Observable Plot, Crew.AI, RAG techniques for AI, Azure OpenAI, Google Apps Script, machine learning, agentic AI

**Research**: Experiment design, advanced statistical analysis, semi-structure interviewing, team management, mentorship, prototyping, user testing, cross-team collaboration, multi-level modeling

**Interests**: Reading, craft beer, baseball, and hiking