Kylie R. Lin

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Doctoral Student, Human-Centered Computing
School of Interactive Computing, Georgia Institute of Technology

Research Interests: Information Visualization, Human Cognition, Trust in Automated Systems, Research Methods Comparison.

Education

Georgia Institute of Technology   Atlanta, GA
  Ph.D. in Human-Centered Computing   2023 – Present
  Advisor: Cindy Xiong Bearfield
  GPA: 4.0 / 4.0

Northwestern University   Evanston, IL
  B.S. in Communication Studies & Cognitive Science   2019 – 2023
  Data Science minor | Digital Media module
  Advisors: David Rapp, Steven Franconeri
  magna cum laude, SoC Dean's List - all eligible terms
  Lambda Pi Eta Honor Society
  GPA: 3.98 / 4.0

Research Experience

Georgia Institute of Technology   Atlanta, GA
  Graduate Student Researcher | VisualizaXiong Lab   2023 – Present
  Advisor: Cindy Xiong Bearfield

  Studying how design choices impact people's perception of data
  visualizations and metrics to assess people's trust in automated systems.

Toyota Research Institute   Los Altos, CA
  Applied Behavioral Science Research Intern | Human-Centered AI team   Summer 2024
  Advisor: Laura Libby

  Conducted research on vehicle owners' perceptions of electric vehicle
  battery degradation, identifying methods to mitigate misunderstanding.

Northwestern University   Evanston, IL
  Student Researcher | Reading Comprehension Lab   2022 – 2023
  Advisor: David Rapp

  Conducted an honors thesis on the impact of visual complexity on
  people's comprehension of data visualizations and their confidence in
  their comprehension.

Research Assistant | Visual Thinking Lab   2020 – 2023
Advisor: Steven Franconeri

Conducted research at the intersection of human cognition and data visualization. Co-authored a paper on chart alignment impacting human comparisons to IEEE TVCG.

Research Assistant | Social Media Lab   Spring 2021
Advisor: Jeremy Birnholtz

Developed a codebook for qualitative survey data using data-driven open coding for a project on how young people disclose sensitive health information online.

SiriusXM   **Oakland, CA**
User Experience Research Intern | Automotive Experience Design Team   Summer 2022
Manager: Katie Bessière

Developed a framework for competitive benchmarking research. Successfully executed benchmarking studies: Handled the recruitment and live interviewing of 12 participants via UserTesting software.

International Visiting and Development

Training Forum on Artificial and Human Intelligence   **Schloss Dagstuhl, Germany**
Host: Mehul Bhatt   Fall 2024
Presented an in-progress research project exploring the potential of visualization design features to model perceived visual complexity.

Publications and Presentations

Publications

Wang, H. W., Cohen, A., Nobre, C., **Lin. K.,** Zwald, Z., Kennedy, R., & Xiong Bearfield, C. [In Submission] Do You "Trust" This Visualization? An Inventory to Measure Trust in Visualizations. *IEEE Transactions on Visualization and Computer Graphics.*

Lin, K., Li, J., Sparks, J., Filipowicz, A., Shamma, D., & Libby, L. (2025). SOH Illusion: Misunderstandings of EV Battery State of Health and Methods to Promote Understanding. In *Proceedings of the 17th International Conference on Automotive User Interfaces and Interactive Vehicular Applications.*

Lin. K., Stokes, C. & Xiong Bearfield, C. (2025). Write, Rank, or Rate: Comparing Methods for Studying Visualization Affordances. *IEEE Transactions on Visualization and Computer Graphics.*

Lin, K., Ru, S. S., Rapp, D. N., Guan, H. & Xiong Bearfield, C. (2025). What Makes a Visualization Visually Complex? In *Extended Abstracts of the CHI Conference on Human Factors in Computing Systems (CHI EA '25). April 26–May 01, 2025, Yokohama, Japan. ACM, New York, NY, USA, 7 pages. https://doi.org/10.1145/3706599.3719983*

Lin. K., Stokes, C. & Xiong Bearfield, C. (2025). LLMs Are Not Reliable Human Proxies to Study Affordances in Data Visualizations. *2nd HEAL Workshop at CHI Conference on Human Factors in Computing Systems (HEAL @ CHI 2025). April 26, 2025, Yokohama, Japan.*

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.*

Posters

Lin, K., Ru, S., Rapp, D., Guan, H., Bearfield, C. X. (October 2024). What Makes a Visualization Complex? Exploring Design Features Related to Visual Complexity. [Poster session]. *IEEE Visualization and Visual Analytics Conference.*

Lin, K., Rapp, D., Xiong, C. (November 2023). Does Visual Complexity Impact Reader Comprehension and Confidence of Data Visualizations? [Poster session]. *Psychonomic Society.*

Awad, M. F., **Lin, K.**, & Franconeri, S. L. (2023). Mixed Graph Designs Do Not Improve Visual Memory. *Journal of Vision*, 23(9), 5781-5781.

Lin, K., Rapp, D., Xiong, C. (2023, May). The Effect of Visual Complexity on Confidence and Comprehension in Visualization Experiences. [Poster session]. *Northwestern Cog Sci Fest, Evanston, IL.*

Awad, M., **Lin, K.**, & Franconeri, S. (2022). Does using a diversity of graph types help your audience remember your data?. *Journal of Vision*, 22(14), 4279-4279.

Lin, K., Xiong, C., Rapp, D. (May 2022). Attempts to Augment Refutation Text Benefits with Visualizations. [Poster session]. *Northwestern Undergraduate Research & Arts Exposition.*

Lin, K., Awad, M.F., Franconeri, S. (May 2022). The Effects of Visual Diversity in Series of Charts. [Poster session]. *Northwestern Cog Sci Fest, Evanston, IL.*

Presentations

Lin, K., Ru, S., Rapp, D., Guan, H., Bearfield, C. X. (2024, October). Quantifying Perceptions of Visual Complexity with Data Visualization Design Features. *Artificial and Human Intelligence, Schloss Daghstul, Germany.*

Professional Experience

Just One Cookbook   **Belmont, CA**
   Operations Analyst   2021–2022
Managers: Shen Chen, Namiko Chen

Co-coordinated the launch of an online subscription membership program (JOC Plus) by designing site pages, advertisements, and by helping facilitate a soft launch.

   Digital Media Intern   2020–2021
Managers: Shen Chen, Namiko Chen

Conducted research on global site traffic using R/RStudio and Google Search Console.

North by Northwestern   **Evanston, IL**
   Graphics Editor & Social Media Graphics Coordinator   2020–2021

Taught weekly design lessons covering design principles, Adobe CC basics, accessibility design, 3D graphics, and more to undergraduate students.

Paravane Ventures   **Remote**
   Market Research & Strategy Case Analyst   Summer 2020

Analyzed the UX/UI and website of the company Product Alliance and the online market for product management courses.

Northwestern–Medill Journalism Institute   **Evanston, IL**
   Student Journalist   Summer 2018

Residency for U.S. and international students. Included writing, video production, ethics, and digital media.

Professional Services

Reviewer
  ACM Conference on Human Factors in Computing Systems (CHI)   2024
  ACM Creativity and Cognition   2021

Fellowships and Awards

Departmental Excellence Award for Undergraduate Students   2023
Northwestern Department of Communication Studies

MinneAnalytics Scholarship, $500   2022
MinneAnalytics

2nd Place, Women in Data Science Datathon, Chicago   2022

Summer Undergraduate Research Fellowship, $3500   2021
Northwestern Department of Cognitive Science

Summer Undergraduate Research Grant, $3500 (awarded but declined)   2021
Northwestern Office of Undergraduate Research

1st Place, Northwestern Data Visualization Contest   2021
Northwestern Department of Statistics and Data Science
Interactive global map depicting the number of COVID-19 cases over time using RShiny. Submission published to university archives, see [here](#).

Finalist, McCormick Design-a-Thon   2020
Northwestern McCormick School of Engineering
Conducted market research and created a wireframe for an app promoting safe social interactions for university students in the time of COVID-19.

Clara Tao Memorial Scholarship, $1000   2019

National Merit Commended Scholar   2017
National Merit Scholarship Corporation

Teaching Experience

Northwestern University
Teaching Assistant
Data Science Project   Spring 2023
Data Visualization   2022 - 2023
Persuasive Images: Rhetoric in Popular Culture   Winter 2021

Peer Mentor
Communication and Technology   Fall 2021

Skills

Human-Subjects Research
- Survey studies: Qualtrics, Prolific, Amazon Mechanical Turk
- Eye tracking studies: EyeLink 1000 eye tracker

Qualitative data analysis
- data-driven open coding
- semi-structured interviewing

Quantitative data analysis
- R/RStudio/RShiny

- Python (pandas, sci-kit learn, Jupyter Notebooks)

Programming
- Python
- HTML/CSS
- Processing
- Arduino
- C/C++

Data Visualization
- Javascript (Vanilla, D3.js), Python (matplotlib, seaborn), R (ggplot2)
- Tableau

Design
- Adobe Creative Suite: Photoshop, Illustrator, Premiere, After Effects, Dimension, XD
- Microsoft 365: Excel, Powerpoint, Word
- Google Workspace: Drive, Sheets, Docs, Slides, Colab
- Figma
- Miro

Relevant Coursework

Georgia Institute of Technology

Human-Computer Interaction
- Principles of Data Visualization (CS 6730)
- Information Visualization (CS 7450)
- Human-Centered Data Analysis (CS 7451)
- Prototyping Interactive Systems (CS 6452)

Social Computing
- Design of Online Communities (CS 6470)

Northwestern University

Data Science & Visualization
- Data Science I-III (STAT 301-1, 301-2, 301-3)
- Data Visualization (STAT 302)
- Information Visualization (COMM ST 395)

Programming
- Fundamentals of Computer Programming I-II (CS 111, CS 211)
- Introduction to Artificial Intelligence (CS 348)
- Introduction to Cognitive Modeling (COG SCI 207)

Research Methods
- Evaluating Evidence (COG SCI 202)
- Cognitive Science Proseminar (COG SCI 366)

- Research Seminar (Hazards of Computing) (COMM ST 394)
- Presenting Ideas and Data (COG SCI 345)