

Susan Vanderplas

Curriculum Vitae

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Education

2009	Ph.D. , <i>Statistics</i> , Iowa State University
11	MS , <i>Statistics</i> , Iowa State University
09	BS , <i>Psychology & Applied Mathematical Sciences</i> , Texas A&M University

Professional Experience

Since 2024	Associate Professor , <i>Statistics</i> , University of Nebraska-Lincoln
24	Assistant Professor , <i>Statistics</i> , University of Nebraska-Lincoln
19	Research Assistant Professor , <i>Center for Statistics and Applications in Forensic Evidence</i> , Iowa State University
18	Statistical Analyst , Nebraska Public Power District
Apr 2015 Oct	Postdoc , <i>Office of the Vice President for Research</i> , Iowa State University

Publications

Peer Reviewed Publications

Student advisees indicated with *.

2025

3. Fudolig, M. A., Robinson, E. A.*, and **Vanderplas, S.** (Apr. 1, 2025). "Can You See The Change? Visual Perception in Change Point Analysis". In: *Journal of Computational and Graphical Statistics* (ja), pp. 1–15. DOI: [10.1080/10618600.2025.2485278](https://doi.org/10.1080/10618600.2025.2485278).
2. Li, W., Cook, D., Tanaka, E., Vanderplas, S., and Ackermann, K. (Oct. 9, 2025). "Automated Residual Plot Assessment With the R Package autovi and the Shiny Application autovi.web". In: *Australian & New Zealand Journal of Statistics*. ISSN: 1467-842X. DOI: [10.1111/anzs.70027](https://doi.org/10.1111/anzs.70027). URL: <https://onlinelibrary.wiley.com/doi/abs/10.1111/anzs.70027>.
1. Robinson, E.*, Hofmann, H., and **Vanderplas, S.** (July 17, 2025). "A Guide to Designing Experiments to Test Statistical Graphics". In: *WIREs Computational Statistics* 17.2, e70032. ISSN: 1939-0068. DOI: [10.1002/wics.70032](https://doi.org/10.1002/wics.70032). URL: <https://onlinelibrary.wiley.com/doi/abs/10.1002/wics.70032>.

2024

7. Cuellar, M., **Vanderplas, S.**, Luby, A., and Rosenblum, M. (Dec. 5, 2024). "Methodological problems in every black-box study of forensic firearm comparisons". In: *Law, Probability and Risk* 23.1, mgae015. ISSN: 1470-8396. DOI: <https://doi.org/10.1093/lpr/mgae015>.
6. Ju, W., **VanderPlas, S.**, and Hofmann, H. (Jan. 24, 2024). "One Model That Fits Them All: Psychometrics With Generalized Linear Mixed Effects Models". In: *Electronic Imaging* 36, pp. 1–8. DOI: <https://doi.org/10.2352/EI.2024.36.1.VDA-358>.
5. Li, W.*, Cook, D., Tanaka, E., and **VanderPlas, S.** (May 22, 2024). "A Plot Is Worth a Thousand Tests: Assessing Residual Diagnostics with the Lineup Protocol". In: *Journal of Computational and Graphical Statistics*, pp. 1497–1511. ISSN: 1061-8600. DOI: <https://doi.org/10.1080/10618600.2024.2344612>.
4. Rogers, R.* and **VanderPlas, S.** (May 2, 2024). "Demonstrative Evidence and the Use of Algorithms in Jury Trials". In: *Journal of Data Science* 22.2, pp. 314–332. DOI: <https://doi.org/10.6339/24-JDS1130>.
3. Rosenblum, M., Chin, E. T., Ogburn, E. L., Nishimura, A., Westreich, D., Datta, A., **Vanderplas, S.**, Cuellar, M., and Thompson, W. C. (Jan. 9, 2024a). "Misuse of statistical method results in highly biased interpretation of forensic evidence in Guyll et al. (2023)". In: *Law, Probability and Risk* 23.1, mgad010. DOI: <https://doi.org/10.1093/lpr/mgad010>.

2. **Vanderplas, S.**, Blankenship, E., and Wiederich, T.* (July 1, 2024). "Escaping Flatland: Graphics, Dimensionality, and Human Perception". In: *Human Interface and the Management of Information*. Ed. by H. Mori and Y. Asahi. Springer Nature Switzerland July 1, 2024, pp. 140–156. ISBN: 978-3-031-60114-9. DOI: https://doi.org/10.1007/978-3-031-60114-9_11.
1. **Vanderplas, S.**, Carriquiry, A., and Hofmann, H. (June 10, 2024). "Hidden Multiple Comparisons Increase Forensic Error Rates". In: *Proceedings of the National Academy of Sciences* 121.25, e2401326121. DOI: <https://doi.org/10.1073/pnas.2401326121>.
0. Wiederich, T.* and **Vanderplas, S.** (Apr. 24, 2024). "Evaluating Perceptual Judgements on 3D Printed Bar Charts". In: *Journal of Data Science* 22.2, pp. 176–190. ISSN: 1680743X. DOI: <https://doi.org/10.6339/24-JDS1131>.
- 2023**
3. Robinson, E.*., Howard, R., and **VanderPlas, S.** (Jan. 12, 2023a). "You Draw It: Implementation of visually fitted trends with r2d3". In: *Journal of Data Science* 21 (2), pp. 281–294. ISSN: 1680-743X. DOI: <https://doi.org/10.6339/22-JDS1083>.
2. Robinson, E. A.*., Howard, R., and **VanderPlas, S.** (Oct. 2, 2023b). "Eye Fitting Straight Lines in the Modern Era". In: *Journal of Computational and Graphical Statistics* 32.4, pp. 1537–1544. ISSN: 1061-8600. DOI: <https://doi.org/10.1080/10618600.2022.2140668>.
1. **VanderPlas, S.**, Ge, Y.*., Unwin, A., and Hofmann, H. (Apr. 21, 2023). "Penguins Go Parallel: a grammar of graphics framework for generalized parallel coordinate plots". In: *Journal of Computational and Graphical Statistics* 32.4, pp. 1572–1587. DOI: <https://doi.org/10.1080/10618600.2023.2195462>.
0. Zemmels, J.*., **Vanderplas, S.**, and Hofmann, H. (Feb. 9, 2023). "A Study in Reproducibility: The Congruent Matching Cells Algorithm and cmcR package". In: *R Journal* 14 (4), pp. 79–102. DOI: <https://doi.org/10.32614/RJ-2023-014>.
- 2022**
1. Bradford, D.* and **VanderPlas, S.** (Dec. 2022). "Exploring Rural Shrink Smart Through Guided Discovery Dashboards". In: *Journal of Data Science*, pp. 1–12. ISSN: 1680-743X. DOI: <https://doi.org/10.6339/22-JDS1080>.
0. Wilhelm, A. and **VanderPlas, S.** (Nov. 1, 2022). "Visual Narratives of the Covid-19 pandemic". In: *Journal of Data Science, Statistics, and Visualisation* 2.7, pp. 84–113. DOI: <https://doi.org/10.52933/jdssv.v2i7.64>.
- 2021**
1. Hofmann, H., Carriquiry, A., and **Vanderplas, S.** (May 5, 2021). "Treatment of inconclusives in the AFTE range of conclusions". In: *Law, Probability and Risk* 19.3-4, pp. 317–364. ISSN: 1470-8396. DOI: <https://doi.org/10.1093/lpr/mgab002>.
0. **Vanderplas, S.**, Röttger, C., Cook, D., and Hofmann, H. (Dec. 1, 2021). "Statistical significance calculations for scenarios in visual inference". In: *Stat* 10.1, e337. DOI: <https://doi.org/10.1002/sta4.337>.

2020

1. **Vanderplas, S.**, Cook, D., and Hofmann, H. (Mar. 1, 2020). "Testing Statistical Charts: What Makes a Good Graph?" In: *Annual Review of Statistics and Its Application* 7.1, pp. 61–88. DOI: <https://doi.org/10.1146/annurev-statistics-031219-041252>.

0. **Vanderplas, S.**, Nally, M., Klep, T., Cadevall, C., and Hofmann, H. (Mar. 1, 2020). "Comparison of three similarity scores for bullet LEA matching". In: *Forensic Science International* 308, p. 110167. ISSN: 0379-0738. DOI: <https://doi.org/10.1016/j.forsciint.2020.110167>.

pre 2020

7. Rutter, L., **Vanderplas, S.**, Cook, D., and Graham, M. (May 29, 2019). "ggenealogy: An R Package for Visualizing Genealogical Data". In: *Journal of Statistical Software* 89.13, pp. 1–31. DOI: <https://doi.org/10.18637/jss.v089.i13>.
6. Sievert, C., **Vanderplas, S.**, Cai, J., Ferris, K., Khan, F. U. F., and Hocking, T. D. (Apr. 1, 2019). "Extending ggplot2 for Linked and Animated Web Graphics". In: *Journal of Computational and Graphical Statistics* 28.2, pp. 299–308. DOI: <https://doi.org/10.1080/10618600.2018.1513367>.
5. **Vanderplas, S.**, Goluch, R. C., and Hofmann, H. (Apr. 1, 2019). "Framed! Reproducing and Revisiting 150-Year-Old Charts". In: *Journal of Computational and Graphical Statistics* 28.3, pp. 620–634. DOI: <https://doi.org/10.1080/10618600.2018.1562937>.
4. **Vanderplas, S.** and Hofmann, H. (Apr. 24, 2017). "Clusters Beat Trend!? Testing Feature Hierarchy in Statistical Graphics". In: *Journal of Computational and Graphical Statistics* 26.2, pp. 231–242. DOI: <https://doi.org/10.1080/10618600.2016.1209116>.
3. **VanderPlas, S.** and Hofmann, H. (Dec. 31, 2016). "Spatial Reasoning and Data Displays". In: *IEEE Transactions on Visualization and Computer Graphics* 22.1, pp. 459–468. DOI: <https://doi.org/10.1109/TVCG.2015.2469125>.
2. **Vanderplas, S.** and Hofmann, H. (Dec. 10, 2015). "Signs of the Sine Illusion – why we need to care". In: *Journal of Computational and Graphical Statistics* 24.4, pp. 1170–1190. DOI: <https://doi.org/10.1080/10618600.2014.951547>.
1. Towfic, F., **Vanderplas, S.**, Oliver, C. A., Couture, O., Tuggle, C. K., Greenlee, M. H. W., and Honavar, V. (Apr. 29, 2010). "Detection of gene orthology from gene co-expression and protein interaction networks". In: *BMC bioinformatics* 11.Supp 3, S7. DOI: <https://doi.org/10.1186/1471-2105-11-S3-S7>.
0. Hull, R., Bortfeld, H., and **Koops, S.** (Apr. 3, 2009). "Near-infrared spectroscopy and cortical responses to speech production". In: *The open neuroimaging journal* 3, p. 26. DOI: <https://doi.org/10.2174/1874440000903010026>.

Book Chapters

1. **Vanderplas, S.**, Carriquiry, A., Hofmann, H., Hamby, J., and Tai, X. H. (May 30, 2022). "An introduction to firearms examination for researchers in statistics". In: *Handbook of Forensic Statistics*. Ed. by Banks, D., Kafadar, K., Kaye, D., and Tackett, M. New York: Chapman and Hall/CRC May 30, 2022, pp. 365–390. DOI: <https://doi.org/10.1201/9780367527709>.

Letters

1. Rosenblum, M., Chin, E. T., Ogburn, E. L., Nishimura, A., Westreich, D., Datta, A., **Vanderplas, S.**, Cuellar, M., and Thompson, W. C. (Nov. 5, 2024b). "Incorrect statistical reasoning in Guyll et al. leads to biased claims about strength of forensic evidence". In: *Proceedings of the National Academy of Sciences* 121.45, e2315431121. DOI: <https://doi.org/10.1073/pnas.2315431121>.

Other Publications

4. Submitted as an invited response to Hullman & Gelman's "Designing for Interactive Exploratory Data Analysis Requires Theories of Graphical Inference".
VanderPlas, S. (July 30, 2021). "Designing Graphics Requires Useful Experimental Testing Frameworks and Graphics Derived From Empirical Results". In: *Harvard Data Science Review* 3.3. DOI: <https://doi.org/10.1162/99608f92.7d099fd0>.
3. Carriquiry, A., Hofmann, H., Tai, X. H., and **Vanderplas, S.** (Apr. 1, 2019). "Machine learning in forensic applications". In: *Significance* 16.2, pp. 29–35. DOI: <https://doi.org/10.1111/j.1740-9713.2019.01252.x>.
2. Submitted as an invited response to Donoho's "50 years of Data Science".
Hofmann, H. and **Vanderplas, S.** (Dec. 19, 2017). "All of This Has Happened Before. All of This Will Happen Again: Data Science". In: *Journal of Computational and Graphical Statistics* 26.4, pp. 775–778. DOI: <https://doi.org/10.1080/10618600.2017.1385474>.
1. Budrus, S., **Vanderplas, S.**, and Cook, D. (June 13, 2013). "In tennis, do smashes win matches?" In: *Significance* 10.3, pp. 35–38. DOI: <https://doi.org/10.1111/j.1740-9713.2013.00665.x>.

Software

Dates show initial involvement; only packages which are no longer maintained have end dates.

2024

courtr, Tools to create visually appealing courtroom studies
<https://github.com/rachelesrogers/courtr>

2023

highlightr, Analysis of edited text data
<https://github.com/rachelesrogers/highlightr>

2021

ggpcp, Generalized parallel coordinate plots
<https://github.com/heike/ggpcp>

2020

vinference, Analysis of visual inference experiments
<https://github.com/heike/vinference>

2019
21

groovefinder, Identification of grooves in scans of bullet land engraved areas
<https://github.com/heike/groovefinder>

2019	cmcR , <i>Automated matching of 3d cartridge case scans using the congruent matching cells algorithm</i> https://github.com/CSAFE-ISU/cmcR
2018	bulletxtrctr , <i>Automated matching of 3d bullet scans</i> https://github.com/heike/bulletxtrctr
2018	x3ptools , <i>Reading, manipulating, and visualizing x3p files</i> https://github.com/heike/x3ptools
2018	bulletsamplr , <i>Resampling of bullet signatures</i> https://github.com/srvanderplas/bulletsamplr
2018 20	ShoeScrapeR , <i>Acquisition of shoe images and metadata from online retailers</i> https://github.com/srvanderplas/shoescraper
2018 21	ImageAlignR , <i>Image registration algorithms for forensics</i> https://github.com/srvanderplas/imagealignr
2013 15	animint , <i>Animated, interactive web graphics for R using ggplot2 and d3.js</i> https://github.com/tdhock/animint

Grants

Funded

2025 2030	NSF: CAREER , <i>What Do You See? Perception, Decisions, and Statistical Graphics</i> , PI, Total: \$550,000
2021 2023	NIJ: R&D In Forensic Science , <i>Automatic Acquisition and Identification of Footwear Class Characteristics</i> , PI, Total: \$380,650
2021 2022	USDA-NIFA: Agriculture and Food Research Initiative , <i>Corn Residue Adaptive Grazing Strategies</i> , Collaborator, Total: \$300,000
2020 2025	NIST: Center for Statistics and Applications in Forensic Evidence , <i>Footwear Class Characteristics and Human Factors</i> , PI, Total: \$20,000,000, Sub: \$456,930
2021 2023	USDA-NRCS: Conservation Innovation Grant On-Farm Trials , <i>Improving the Economic and Ecological Sustainability of US Crop Production through On-Farm Precision Experimentation</i> , PI, Total: \$4,000,000, Sub: \$400,000 (Split between 3 UNL co-PIs)
2020 2023	NSF: Smart and Connected Communities , <i>Overcoming the Rural Data Deficit to Improve Quality of Life and Community Services in Smart & Connected Small Communities</i> , PI, Total: \$1,500,000, Sub: \$123,445
2019 2020	NIJ: R&D In Forensic Science , <i>Statistical Infrastructure for the Use of Error Rate Studies in the Interpretation of Forensic Evidence</i> , Collaborator, Total: \$197,699, Sub: \$57,596

Awards

2025	CAREER Award , <i>National Science Foundation</i>
2012	Student Paper Award , <i>Graphics Section, American Statistical Association</i>

Talks

 provides a link to slides, where available

Invited

2025

Hidden Multiple Comparisons Increase Forensic Error Rates , *ENAR Spring Meeting*, New Orleans, Louisiana

2024

Web Scraping Olympics: Python , *Statistical Computing Section Mini-Symposium*, Online

2024

A Plot is Worth a Thousand Tests: Assessing Residual Diagnostics with the Lineup Protocol , *JSM*, Section on Statistical Graphics, Portland, OR

2024

Escaping Flatland: Graphics, Dimensionality, and Human Perception , *Human Computer Interaction International*, Washington DC

2024

Cultivating Insights: Harnessing the Power of Data Visualization in Agriculture , *International Conference for On-Farm Precision Experimentation*, Corpus Christie, TX

2023

Multimodal User Testing: Producing comprehensive, task-focused guidelines for chart design , *Australian Statistical Conference*, Wollongong, NSW, AUS

2023

How Do You Define a Circle? Perception and Computer Vision Diagnostics , *International Association for Statistical Computing*, Asian Regional Section Meeting, Macquarie, NSW, AUS

2023

Multimodal User Testing: Producing comprehensive, task-focused guidelines for chart design , *International Conference on Data Science*, Universidad Diego Portales, Chile

2023

Testing Statistical Graphics , *JSM*, Section on Statistical Graphics, Toronto, ON, CA

2021

How do you define a circle? Perception and Computer Vision Diagnostics , *JSM*, Section on Statistical Graphics, Seattle, WA

2021

Pandemics, Graphics, and Perception of Log Scales , *R Ladies DC*, Washington, DC

2020

Perception and Visual Communication in a Global Pandemic , *Data Science, Statistics, and Visualization*, SAMSI, Online

2020

One of these things is not like the others: Visual Statistics and Testing in Statistical Graphics , *Data Science Symposium*, South Dakota State University, Brookings, SD

2020

Big Data, Big Experiments, and Big Problems , *Plant and Animal Genome*, San Diego, CA

2019

Statistical Lineups for Bayesians , *JSM*, Section on Statistical Graphics, Denver, CO

2018

Clusters Beat Trend!? Testing Feature Hierarchy in Statistical Graphics , *SDSS*, Reston, VA

2015	Animint: Interactive Web-Based Animations using Ggplot2's Grammar of Graphics [link] , <i>JSM</i> , Section on Statistical Graphics, Seattle, WA
2014	The curse of three dimensions: Why your brain is lying to you [link] , <i>JSM</i> , Section on Statistical Graphics, Boston, MA
	Contributed
2025	Teaching Statistical Computing with R and Python [link] , <i>useR!</i> , Durham, NC
2025	Hidden Multiple Comparisons Increase Forensic Error Rates [link] , <i>Joint Statistical Meetings</i> , Forensics Interest Group, Nashville, TN
2022	Local Population Footwear Class Characteristics - An End-to-End Pipeline for Automatic Data Acquisition and Analysis [link] , <i>International Association for Identification Meeting</i> , Omaha, NE
2022	From Scans to Scores , <i>International Association for Identification Meeting</i> , Omaha, NE
2022	How do you define a circle? Perception and Computer Vision Diagnostics [link] , <i>SDSU Data Science Symposium</i> , South Dakota State University, Brookings, SD
2021	Welcome to Forensic Statistics [link] , <i>Data Mishaps Night</i> , Online
2018	Framed Charts in the 1870 Statistical Atlas [link] , <i>JSM</i> , Section on Statistical Graphics, Vancouver, BC, CA
2017	A Bayesian Approach to Visual Inference , <i>JSM</i> , Section on Statistical Graphics, Baltimore, MD
2016	Clusters Beat Trend!? Testing Feature Hierarchy in Statistical Graphics [link] , <i>JSM</i> , Section on Statistical Graphics, Chicago, IL
2015	Visual Aptitude and Statistical Graphics , <i>InfoVis</i> , IEEE, Chicago, IL
2014	Do You See What I See? Using Shiny for User Testing [link] , <i>JSM</i> , Section on Statistical Graphics, Boston, MA
2014	Animint: Interactive, Web-Ready Graphics with R [link] , <i>Great Plains R User Group</i> , Sioux Center, IA
2013	Signs of the Sine Illusion – why we need to care , <i>JSM</i> , Section on Statistical Graphics, Montreal, ON, CA

Seminars

2024	Creating Effective Graphics , <i>Undergraduate Creative Activities and Research Experience</i> , Lincoln, NE
2024	Creating Good Graphics , <i>UNL REU seminar</i> , University of Nebraska - Lincoln, Lincoln, NE
2024	Graphical Perception in a Pandemic: Log Scales, Exponential Growth, and the Importance of User Testing , <i>University of Illinois Chicago School of Public Health</i> , Epidemiology and Biostatistics Seminar, Chicago, IL (Online)
2024	Building a CV/Blog Automatically , <i>Graphics Group</i> , University of Nebraska, Online
2024	Building a CV with R and Google Sheets , <i>Graphics Group</i> , University of Nebraska, Online
2024	Using Git Submodules , <i>Graphics Group</i> , University of Nebraska, Online
2023	Graphics and Cognition: How Do We Perceive Charts? , <i>Graphics Group</i> , University of Nebraska-Lincoln, Iowa State University, and other interested affiliates, Online
2023	What Makes a Good Graph? Graphical Testing and Principles for Graph Design , <i>Center for Brain, Biology, and Behavior</i> , University of Nebraska, Lincoln, NE
2023	Inconclusive Conclusions: Biases and Consequences , <i>Biostatistics</i> , Johns Hopkins University, Baltimore, MD
2022	Reproducible Science: Statistics, Forensics, and the Law , <i>Statistics</i> , University of Nebraska - Lincoln, Lincoln, NE
2022	How to make good charts , <i>Complex Biosystems</i> , University of Nebraska - Lincoln, Lincoln, NE
2022	Pandemics, Graphics, and Perception of Log Scales , <i>Math</i> , University of Nebraska - Omaha, Omaha, NE
2022	Automatic Acquisition of Footwear Class Characteristics , <i>Center for Statistical Applications in Forensic Evidence</i> , Online
2021	Pandemics, Graphics, and Perception of Log Scales , <i>NUMBATS</i> , Monash University, Melbourne, Vic, AUS
2021	Exploring Rural Quality of Life Using Data Science and Public Data , <i>QQPM</i> , University of Nebraska - Lincoln, Lincoln, NE
2021	Inconclusive Conclusions: Biases and Consequences , <i>Law and Psychology Brown Bag</i> , University of Nebraska - Lincoln, Lincoln, NE
2021	Visual Statistics: Communication and Graphical Testing , <i>Animal Science</i> , University of Nebraska - Lincoln, Lincoln, NE
2021	How to Make Good Charts , <i>Biological and Systems Engineering GSA</i> , University of Nebraska - Lincoln, Lincoln, NE
2020	Statistical Evaluation of Firearms and Toolmark Evidence , <i>Statistics</i> , University of Nebraska - Lincoln, Lincoln, NE

Teaching

2025	STAT 151 , <i>Introduction to Statistical Computing</i> , University of Nebraska – Lincoln, Flipped synchronous. Evals: 3.90 (mean), 4 (median)
2025	STAT 349 , <i>Technical Skills for Statisticians</i> , University of Nebraska – Lincoln, In person synchronous. Evals: 4.00 (mean), 4 (median)
2025	STAT 351 , <i>Statistical Computing II - Data Management and Visualization</i> , University of Nebraska – Lincoln, In person synchronous
2025	STAT 850 , <i>Computing Tools for Statisticians</i> , University of Nebraska – Lincoln, Flipped synchronous
2024	STAT 151 , <i>Introduction to Statistical Computing</i> , University of Nebraska – Lincoln, Flipped synchronous. Evals: 4.50 (mean), 5 (median)
2024	STAT 251 , <i>Data Wrangling</i> , University of Nebraska – Lincoln, Flipped synchronous. Evals: 4.69 (mean), 5 (median)
2024	STAT 892 , <i>Writing in Statistics/TA Prep</i> , University of Nebraska – Lincoln, In person synchronous
2024	Stat 992 , <i>Special Topics in Data Visualization</i> , University of Nebraska – Lincoln, In person synchronous. Evals: 4.82 (mean), 5 (median)
2023	STAT 151 , <i>Introduction to Statistical Computing</i> , University of Nebraska – Lincoln, Flipped synchronous. Evals: 4.55 (mean), 5 (median)
2023	STAT 251 , <i>Data Wrangling</i> , University of Nebraska – Lincoln, Flipped synchronous. Evals: 4.30 (mean), 5 (median)
2023	STAT 892 , <i>Data Technologies for Statistical Analysis</i> , University of Nebraska – Lincoln, Co-taught with ISU Stat 585, Hybrid synchronous. Evals: 4.45 (mean), 4 (median)
2023	STAT 850 , <i>Computing Tools for Statisticians</i> , University of Nebraska – Lincoln, Flipped synchronous. Evals: 4.31 (mean), 5 (median)
2023	STAT 892 , <i>Writing in Statistics/TA Prep</i> , University of Nebraska – Lincoln, In person synchronous. Evals: 4.13 (mean), 4 (median)
2022	STAT 151 , <i>Introduction to Statistical Computing</i> , University of Nebraska – Lincoln, Flipped synchronous. Evals: 4.95 (mean), 5 (median)
2022	STAT 218 , <i>Introduction to Statistics</i> , University of Nebraska – Lincoln, Online asynchronous. Evals: 3.72 (mean), 4 (median)
2022	STAT 850 , <i>Computing Tools for Statisticians</i> , University of Nebraska – Lincoln, Flipped synchronous. Evals: 4.33 (mean), 5 (median)
2022	STAT 892 , <i>Writing in Statistics/TA Prep</i> , University of Nebraska – Lincoln, In person synchronous. Evals: 4.29 (mean), 5 (median)
2022	STAT 982 , <i>Advanced Inference</i> , University of Nebraska – Lincoln, Co-taught with Bertrand Clarke. Evals: 4.34 (mean), 5 (median)
2021	STAT 218 , <i>Introduction to Statistics</i> , University of Nebraska – Lincoln, Online asynchronous.. Evals: 4.01 (mean), 4 (median)

2021	STAT 850 , <i>Computing Tools for Statisticians</i> , University of Nebraska – Lincoln, Hybrid, flipped, synchronous. Evals: 4.79 (mean), 5 (median)
2020	STAT 218 , <i>Introduction to Statistics</i> , University of Nebraska – Lincoln, Initially in person synchronous, then online asynchronous. Evals: 4.20 (mean), 4 (median)
2020	STAT 850 , <i>Computing Tools for Statisticians</i> , University of Nebraska – Lincoln, Hybrid, flipped, synchronous. Evals: 4.76 (mean), 5 (median)
2019	STAT 585 , <i>Data Technologies for Statistical Analysis</i> , Iowa State, Co-taught with Heike Hofmann. Evals: 4.92 (mean), 5 (median)

Mentoring

Ph.D.

2024	Harriet Mason , Monash University
2023	Tyler Wiederich , <i>Perception of Three Dimensional Graphics</i> , University of Nebraska - Lincoln
2023	Muxin Ha , <i>Automatic Recognition of Shoe Class Characteristics</i> , University of Nebraska - Lincoln
2021	Denise Bradford , <i>Dashboards for Exploratory Multivariate Data Analysis</i> , University of Nebraska - Lincoln
2022 2024	Weihao (Patrick) Li , <i>Advances in Artificial Intelligence for Data Visualization: Developing Computer Vision Models to Automate Reading of Data Plots, with Application to Predictive Model Diagnostics</i> , co-advised with Dianne Cook and Emi Tanaka, Monash University
2021 2024	Rachel Rogers , <i>Explainable Machine Learning for Forensics in Courtooms</i> , University of Nebraska - Lincoln
2020 2023	Alison Kleffner , <i>Spatial Statistics and Visualization in Ecology and Agriculture</i> , co-advised with Yawen Guan, University of Nebraska - Lincoln
2020 2023	Joseph Zemmels , <i>Analysis and Matching of Cartridge Cases</i> , co-advised with Heike Hofmann, Iowa State University
2020 2022	Emily Robinson , <i>Perception of Log Scales</i> , co-advised with Reka Howard, University of Nebraska - Lincoln

MS

2024	Maksuda Aktar Toma , <i>An Historical Analysis of Pie and Bar Chart Experiments</i> , University of Nebraska ASCII//TRANSLITASCII//TRANSLITASCII//TRANSLIT Lincoln
2024	Dinuwanthi Lianage , University of Nebraska
2024	Nicole Harms , University of Nebraska
2022 2023	Tyler Wiederich , <i>Perception of Three Dimensional Graphics</i> , University of Nebraska - Lincoln
2022 2023	Muxin Ha , <i>Automatic Recognition of Shoe Class Characteristics</i> , University of Nebraska - Lincoln

<p>2021 2022</p> <p>2020</p> <p>2019 2020</p> <p>2019 2020</p> <p>2018 2019</p> <p>2025 2026</p> <p>2024 2025</p> <p>2024 2025</p> <p>2021</p> <p>2019</p> <p>2018 2019</p> <p>2019</p> <p>2018</p>	<p>Jayden Stack, <i>Automatic Recognition of Shoe Class Characteristics</i>, University of Nebraska - Lincoln</p> <p>Ved Piyush, <i>Machine Learning and Computer Vision</i>, University of Nebraska - Lincoln</p> <p>Joseph Zemmels, <i>Analysis and Matching of Cartridge Cases</i>, co-advised with Heike Hofmann, Iowa State University</p> <p>Eryn Blagg, <i>Analysis of Wear Development in Three-Dimensional Shoe Scans</i>, co-advised with Heike Hofmann, Iowa State University</p> <p>Miranda Tilton, <i>Footwear Class Characteristics and Computer Vision</i>, Iowa State University</p> <p>Undergraduate</p> <p>Mason Chandler, <i>The Quantitative Display of Insanity</i>, UNL Undergraduate Research Program, University of Nebraska</p> <p>Mason Chandler, <i>An Historical Analysis of Pie and Bar Chart Experiments</i>, UNL FYRE Program, University of Nebraska</p> <p>Olivia Walker, <i>An Historical Analysis of Pie and Bar Chart Experiments</i>, UNL FYRE Program, University of Nebraska</p> <p>Xinyu Liu, <i>Machine Learning for Shoe Sole Images</i>, UNL FYRE Program, University of Nebraska - Lincoln</p> <p>Jason Seo, <i>R package for visualization of neural networks using the python library keras-vis</i>, Iowa State University</p> <p>Talen Fisher, <i>Database engineering and tools for working with x3p files</i>, Iowa State University</p> <p>Summer</p> <p>Molly McDermott and Andrew Maloney, <i>Bullet Scan Quality and Machine Learning</i>, Iowa State University</p> <p>Syema Ailia, Emmanuelle Hernandez Morales, Tiger Ji, <i>Rapid quality control tools for confocal microscopy scans</i>, Iowa State University</p> <p>Ben Wonderlin, Jenny Kim, <i>Footwear Class Characteristics and Computer Vision</i>, Young Engineers and Scientists Program, Iowa State University</p>
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Professional Activities

Service

Discipline

2024	Organizer , <i>Nebraska R User Group (NEBRUG)</i> , Co-chair, Group for R users across Nebraska to connect and learn new skills.
2023	Member , <i>Advisory Committee on Forensic Science</i> , ASA
2023	Chair , <i>Section on Statistical Graphics</i> , ASA
2024	Chair-Elect , <i>Section on Statistical Graphics</i> , ASA
2022	Associate Editor , <i>Journal of Computational and Graphical Statistics</i>
2023	Associate Editor , <i>R Journal</i>
2021	Program Chair , <i>Section on Statistical Graphics</i> , ASA
2024	Program Committee (Graphics) , <i>Symposium on Data Science and Statistics (2020)</i>
2020	Member , <i>Gertrude Cox Scholarship Committee</i> , ASA
2022	Organizing Committee , <i>Uncoast Unconference</i> , Des Moines, IA, Organized the first R Uncoast Unconference to bring R developers in flyover country together for a 3-day event. Over 50% of the participants at the conference were women or minorities, and participants included students, academics, and industry R programmers with a variety of experience levels in R programming.
2017	Council of Sections Representative , <i>Section on Statistical Graphics</i> , ASA
2019	
2024	Member , <i>Faculty Senate</i> , Executive Committee, 2.5 hour meetings weekly during the school year and biweekly during the summer.
2027	
2023	Member , <i>Ad-Hoc Committee on EM 16</i> , Faculty Senate
2024	
2022	Representative , <i>Statistics Department</i> , Faculty Senate
2021	Vice-Chair , <i>Statistics Department Representative</i> , Faculty Advisory Council
2022	
2021	Member , <i>Digital Ag Minor Committee</i>
2021	
2021	Member , <i>Data Science Joint Committee</i> , Committee of Math, Computer Science, and Statistics departments to develop a comprehensive undergraduate data science program
2020	Poster Judge , <i>SCIL 101</i> , Fall Semester

	Department
2021	Member , <i>MS Comprehensive Exam Committee</i>
2022	Coordinator , <i>R workshops</i> , University of Nebraska Lincoln, Develop and coordinate a week of R workshops taught in January and May each year
2021	Organizer , <i>Seminar</i> , Statistics Department
2020	Member , <i>Undergraduate Program Committee</i> , Statistics Department, Design the undergraduate statistics program, propose new classes to support the program, and submit proposals to the university for new courses and programs.
2020	Reviewing I have provided peer reviews for CRC/Chapman & Hall, Forensic Science International, Journal of Statistics and Data Science Education, R Journal, IEEE InfoVis, Journal of Computational and Graphical Statistics, Symmetry, Forensic Sciences Research, Law, Probability, and Risk, Harvard Data Science Review, Journal of the American Statistical Association, The American Statistician

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