

Susan Vanderplas

Curriculum Vitae

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Education

- 2009
15 **Ph.D.**, *Statistics*, Iowa State University
- 2009
11 **MS**, *Statistics*, Iowa State University
- 2005
09 **BS**, *Psychology & Applied Mathematical Sciences*, Texas A&M University

Professional Experience

- Since 2024 **Associate Professor**, *Statistics*, University of Nebraska-Lincoln
- 2020
24 **Assistant Professor**, *Statistics*, University of Nebraska-Lincoln
- 2018
19 **Research Assistant Professor**, *Center for Statistics and Applications in Forensic Evidence*, Iowa State University
- 2015
18 **Statistical Analyst**, Nebraska Public Power District

Publications

Peer Reviewed Publications

Student advisees indicated with *.

- 2025
4. 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).
 3. 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>.
 2. 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>.

1. Robinson, E. A.*, Howard, R., and **Vanderplas, S.** (Mar. 11, 2025). "Perception and Cognitive Implications of Logarithmic Scales for Exponentially Increasing Data: Perceptual Sensitivity Tested with Statistical Lineups". In: *Journal of Computational and Graphical Statistics* (ja), pp. 1–14. DOI: [10.1080/10618600.2025.2476097](https://doi.org/10.1080/10618600.2025.2476097).
8. 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>.
7. 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>.
6. 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>.
5. 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>.
4. 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>.
3. **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.
2. **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>.
1. 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

4. 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>.
3. 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>.
2. **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>.
1. 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

2. 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>.
1. 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

2. 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>.
1. **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

2. **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>.
1. **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>.

8. Rutter, L., **Vanderplas, S.**, Cook, D., and Graham, M. (May 29, 2019). "gge-nealogy: 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>.
7. 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>.
6. **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>.
5. **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>.
4. **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>.
3. **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>.
2. 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.Suppl 3, S7. DOI: <https://doi.org/10.1186/1471-2105-11-S3-S7>.
1. Hull, R., Bortfeld, H., and **Koons, 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>.

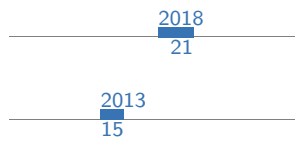
Other Publications

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 , <i>Tools to create visually appealing courtroom studies</i> https://github.com/rachelesrogers/courtr
2023	highlightr , <i>Analysis of edited text data</i> https://github.com/rachelesrogers/highlightr
2021	ggpcp , <i>Generalized parallel coordinate plots</i> https://github.com/heike/ggpcp
2020	vinference , <i>Analysis of visual inference experiments</i> https://github.com/heike/vinference
2019 21	groovefinder , <i>Identification of grooves in scans of bullet land engraved areas</i> 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



ImageAlignR, *Image registration algorithms for forensics*

<https://github.com/srvanderplas/imagealignr>

animint, *Animated, interactive web graphics for R using ggplot2 and d3.js*

<https://github.com/tdhock/animint>

Grants



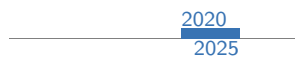
NSF: CAREER, *What Do You See? Perception, Decisions, and Statistical Graphics*, PI, Total: \$550,000



NIJ: R&D In Forensic Science, *Automatic Acquisition and Identification of Footwear Class Characteristics*, PI, Total: \$380,650



USDA-NIFA: Agriculture and Food Research Initiative, *Corn Residue Adaptive Grazing Strategies*, Collaborator, Total: \$300,000



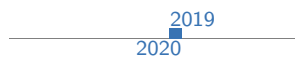
NIST: Center for Statistics and Applications in Forensic Evidence, *Footwear Class Characteristics and Human Factors*, PI, Total: \$20,000,000, Sub: \$456,930



USDA-NRCS: Conservation Innovation Grant On-Farm Trials, *Improving the Economic and Ecological Sustainability of US Crop Production through On-Farm Precision Experimentation*, PI, Total: \$4,000,000, Sub: \$400,000 (Split between 3 UNL co-PIs)



NSF: Smart and Connected Communities, *Overcoming the Rural Data Deficit to Improve Quality of Life and Community Services in Smart & Connected Small Communities*, PI, Total: \$1,500,000, Sub: \$123,445



NIJ: R&D In Forensic Science, *Statistical Infrastructure for the Use of Error Rate Studies in the Interpretation of Forensic Evidence*, Collaborator, Total: \$197,699, Sub: \$57,596


Awards



CAREER Award, *National Science Foundation*

Student Paper Award, *Graphics Section, American Statistical Association*

Talks

 provides a link to slides, where available

Invited




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




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



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



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

2024	Cultivating Insights: Harnessing the Power of Data Visualization in Agriculture 📄 , <i>International Conference for On-Farm Precision Experimentation</i> , Corpus Christie, TX
2023	Multimodal User Testing: Producing comprehensive, task-focused guidelines for chart design 📄 , <i>Australian Statistical Conference</i> , Wollongong, NSW, AUS
2023	How Do You Define a Circle? Perception and Computer Vision Diagnostics 📄 , <i>International Association for Statistical Computing</i> , Asian Regional Section Meeting, Macquarie, NSW, AUS
2023	Multimodal User Testing: Producing comprehensive, task-focused guidelines for chart design 📄 , <i>International Conference on Data Science</i> , Universidad Diego Portales, Chile
2023	Testing Statistical Graphics 📄 , <i>JSM</i> , Section on Statistical Graphics, Toronto, ON, CA
2021	How do you define a circle? Perception and Computer Vision Diagnostics 📄 , <i>JSM</i> , Section on Statistical Graphics, Seattle, WA
2021	Pandemics, Graphics, and Perception of Log Scales 📄 , <i>R Ladies DC</i> , Washington, DC
2020	Perception and Visual Communication in a Global Pandemic 📄 , <i>Data Science, Statistics, and Visualization</i> , SAMSI, Online
2020	One of these things is not like the others: Visual Statistics and Testing in Statistical Graphics 📄 , <i>Data Science Symposium</i> , South Dakota State University, Brookings, SD
2020	Big Data, Big Experiments, and Big Problems 📄 , <i>Plant and Animal Genome</i> , San Diego, CA
2019	Statistical Lineups for Bayesians 📄 , <i>JSM</i> , Section on Statistical Graphics, Denver, CO
2018	Clusters Beat Trend!? Testing Feature Hierarchy in Statistical Graphics 📄 , <i>SDSS</i> , Reston, VA
2015	Animint: Interactive Web-Based Animations using Ggplot2's Grammar of Graphics 📄 , <i>JSM</i> , Section on Statistical Graphics, Seattle, WA
2014	The curse of three dimensions: Why your brain is lying to you 📄 , <i>JSM</i> , Section on Statistical Graphics, Boston, MA

Contributed

2025	Teaching Statistical Computing with R and Python 📄 , <i>useR!</i> , Durham, NC
2025	Hidden Multiple Comparisons Increase Forensic Error Rates 📄 , <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 📄 , <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 📄 , <i>SDSU Data Science Symposium</i> , South Dakota State University, Brookings, SD
2021	Welcome to Forensic Statistics 📄 , <i>Data Mishaps Night</i> , Online
2018	Framed Charts in the 1870 Statistical Atlas 📄 , <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 📄 , <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 📄 , <i>JSM</i> , Section on Statistical Graphics, Boston, MA
2014	Animint: Interactive, Web-Ready Graphics with R 📄 , <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 [\[link\]](#), *Undergraduate Creative Activities and Research Experience*, Lincoln, NE

2024

Creating Good Graphics [\[link\]](#), *UNL REU seminar*, University of Nebraska - Lincoln, Lincoln, NE

2024

Graphical Perception in a Pandemic: Log Scales, Exponential Growth, and the Importance of User Testing [\[link\]](#), *University of Illinois Chicago School of Public Health*, Epidemiology and Biostatistics Seminar, Chicago, IL (Online)

2024

Building a CV/Blog Automatically [\[link\]](#), *Graphics Group*, University of Nebraska, Online

2024

Building a CV with R and Google Sheets [\[link\]](#), *Graphics Group*, University of Nebraska, Online

2024

Using Git Submodules [\[link\]](#), *Graphics Group*, University of Nebraska, Online

2023

Graphics and Cognition: How Do We Perceive Charts? [\[link\]](#), *Graphics Group*, 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 [\[link\]](#), *Center for Brain, Biology, and Behavior*, University of Nebraska, Lincoln, NE

2023

Inconclusive Conclusions: Biases and Consequences [\[link\]](#), *Biostatistics*, Johns Hopkins University, Baltimore, MD

2022

Reproducible Science: Statistics, Forensics, and the Law [\[link\]](#), *Statistics*, University of Nebraska - Lincoln, Lincoln, NE

2022

How to make good charts [\[link\]](#), *Complex Biosystems*, University of Nebraska - Lincoln, Lincoln, NE

2022

Pandemics, Graphics, and Perception of Log Scales [\[link\]](#), *Math*, University of Nebraska - Omaha, Omaha, NE

2022

Automatic Acquisition of Footwear Class Characteristics [\[link\]](#), *Center for Statistical Applications in Forensic Evidence*, Online

2021

Pandemics, Graphics, and Perception of Log Scales [\[link\]](#), *NUMBATS*, Monash University, Melbourne, Vic, AUS

2021

Exploring Rural Quality of Life Using Data Science and Public Data [\[link\]](#), *QQPM*, University of Nebraska - Lincoln, Lincoln, NE

2021

Inconclusive Conclusions: Biases and Consequences [\[link\]](#), *Law and Psychology Brown Bag*, University of Nebraska - Lincoln, Lincoln, NE

2021

Visual Statistics: Communication and Graphical Testing [\[link\]](#), *Animal Science*, University of Nebraska - Lincoln, Lincoln, NE

2021

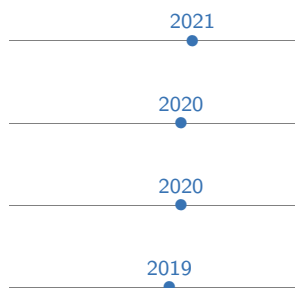
How to Make Good Charts [\[link\]](#), *Biological and Systems Engineering GSA*, University of Nebraska - Lincoln, Lincoln, NE

2020

Statistical Evaluation of Firearms and Toolmark Evidence [\[link\]](#), *Statistics*, 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)



STAT 850, *Computing Tools for Statisticians*, University of Nebraska – Lincoln, Hybrid, flipped, synchronous. Evals: 4.79 (mean), 5 (median)

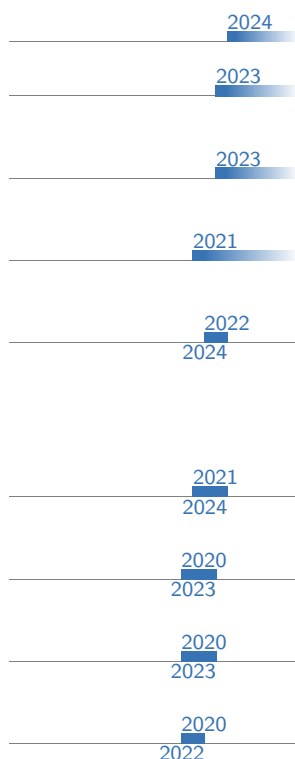
STAT 218, *Introduction to Statistics*, University of Nebraska – Lincoln, Initially in person synchronous, then online asynchronous. Evals: 4.20 (mean), 4 (median)

STAT 850, *Computing Tools for Statisticians*, University of Nebraska – Lincoln, Hybrid, flipped, synchronous. Evals: 4.76 (mean), 5 (median)

STAT 585, *Data Technologies for Statistical Analysis*, Iowa State, Co-taught with Heike Hofmann. Evals: 4.92 (mean), 5 (median)

Mentoring

Ph.D.



Harriet Mason, Monash University

Tyler Wiederich, *Perception of Three Dimensional Graphics*, University of Nebraska - Lincoln

Muxin Ha, *Automatic Recognition of Shoe Class Characteristics*, University of Nebraska - Lincoln

Denise Bradford, *Dashboards for Exploratory Multivariate Data Analysis*, University of Nebraska - Lincoln

Weihao (Patrick) Li, *Advances in Artificial Intelligence for Data Visualization: Developing Computer Vision Models to Automate Reading of Data Plots, with Application to Predictive Model Diagnostics*, co-advised with Dianne Cook and Emi Tanaka, Monash University

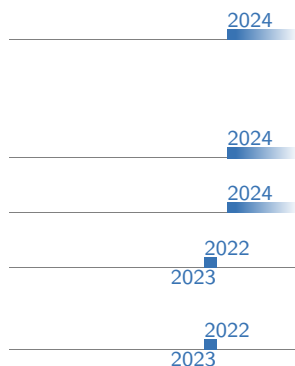
Rachel Rogers, *Explainable Machine Learning for Forensics in Courtrooms*, University of Nebraska - Lincoln

Alison Kleffner, *Spatial Statistics and Visualization in Ecology and Agriculture*, co-advised with Yawen Guan, University of Nebraska - Lincoln

Joseph Zemmels, *Analysis and Matching of Cartridge Cases*, co-advised with Heike Hofmann, Iowa State University

Emily Robinson, *Perception of Log Scales*, co-advised with Reka Howard, University of Nebraska - Lincoln

MS



Maksuda Aktar Toma, *An Historical Analysis of Pie and Bar Chart Experiments*, University of Nebraska ASCII//TRANSLITASCII//TRANSLITASCII//TRANSLIT Lincoln

Dinuwanthi Lianage, University of Nebraska

Nicole Harms, University of Nebraska

Tyler Wiederich, *Perception of Three Dimensional Graphics*, University of Nebraska - Lincoln

Muxin Ha, *Automatic Recognition of Shoe Class Characteristics*, University of Nebraska - Lincoln



Jayden Stack, *Automatic Recognition of Shoe Class Characteristics*, University of Nebraska - Lincoln

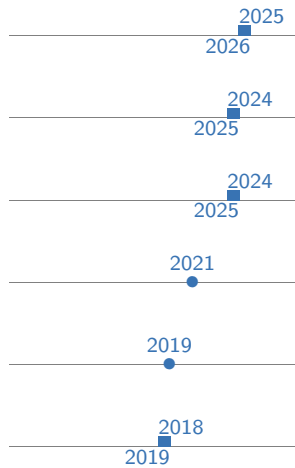
Ved Piyush, *Machine Learning and Computer Vision*, University of Nebraska - Lincoln

Joseph Zemmels, *Analysis and Matching of Cartridge Cases*, co-advised with Heike Hofmann, Iowa State University

Eryn Blagg, *Analysis of Wear Development in Three-Dimensional Shoe Scans*, co-advised with Heike Hofmann, Iowa State University

Miranda Tilton, *Footwear Class Characteristics and Computer Vision*, Iowa State University

Undergraduate



Mason Chandler, *The Quantitative Display of Insanity*, UNL Undergraduate Research Program, University of Nebraska

Mason Chandler, *An Historical Analysis of Pie and Bar Chart Experiments*, UNL FYRE Program, University of Nebraska

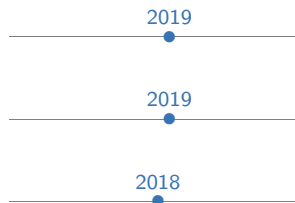
Olivia Walker, *An Historical Analysis of Pie and Bar Chart Experiments*, UNL FYRE Program, University of Nebraska

Xinyu Liu, *Machine Learning for Shoe Sole Images*, UNL FYRE Program, University of Nebraska - Lincoln

Jason Seo, *R package for visualization of neural networks using the python library keras-vis*, Iowa State University

Talen Fisher, *Database engineering and tools for working with x3p files*, Iowa State University

Summer



Molly McDermott and Andrew Maloney, *Bullet Scan Quality and Machine Learning*, Iowa State University

Syema Ailia, Emmanuelle Hernandez Morales, Tiger Ji, *Rapid quality control tools for confocal microscopy scans*, Iowa State University

Ben Wonderlin, Jenny Kim, *Footwear Class Characteristics and Computer Vision*, Young Engineers and Scientists Program, Iowa State University

Service

Discipline

Organizer, *Nebraska R User Group (NEBRUG)*, Co-chair, Group for R users across Nebraska to connect and learn new skills.

Member, *Advisory Committee on Forensic Science*, ASA

Chair, *Section on Statistical Graphics*, ASA

Chair-Elect, *Section on Statistical Graphics*, ASA

Associate Editor, *Journal of Computational and Graphical Statistics*

Associate Editor, *R Journal*

Program Chair, *Section on Statistical Graphics*, ASA

Program Committee (Graphics), *Symposium on Data Science and Statistics (2020)*

Member, *Gertrude Cox Scholarship Committee*, ASA

Organizing Committee, *Uncoast Unconference*, 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.

Council of Sections Representative, *Section on Statistical Graphics*, ASA

Institution

Member, *Faculty Senate*, Executive Committee, 2.5 hour meetings weekly during the school year and biweekly during the summer.

Member, *Ad-Hoc Committee on EM 16*, Faculty Senate

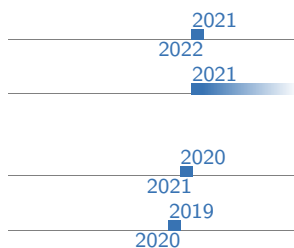
Representative, *Statistics Department*, Faculty Senate

Vice-Chair, *Statistics Department Representative*, Faculty Advisory Council

Member, *Digital Ag Minor Committee*

Member, *Data Science Joint Committee*, Committee of Math, Computer Science, and Statistics departments to develop a comprehensive undergraduate data science program

Poster Judge, *SCIL 101*, Fall Semester



Department

Member, *MS Comprehensive Exam Committee*

Coordinator, *R workshops*, University of Nebraska Lincoln, Develop and coordinate a week of R workshops taught in January and May each year

Organizer, *Seminar*, Statistics Department

Member, *Undergraduate Program Committee*, 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.

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

References

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