

# Alex Reinhart

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## Positions

2024 – **Associate Teaching Professor**, Statistics & Data Science, Carnegie Mellon University  
2018 – 2024 **Assistant Teaching Professor**

## Education

2018 **Ph.D. Statistics**, *Carnegie Mellon University*  
Thesis supervised by Joel Greenhouse, titled “Point process modeling with spatiotemporal covariates for predicting crime.”  
2014 **M.S. Statistics**, *Carnegie Mellon University*  
2013 **B.S. Physics**, *University of Texas at Austin*, highest honors  
Dean’s Scholars Honors. Honors thesis supervised by Alex Athey and Roy Schwitters, titled “An integrated system for gamma-ray spectral mapping and anomaly detection.”

## Current interests

2017 – **TeachStat Research Group**, [stat.cmu.edu/teachstat/](http://stat.cmu.edu/teachstat/)  
Co-founder of the TeachStat Research Group, which studies how undergraduate students learn statistics, applies cognitive science research methods to pedagogical problems, and develops new teaching materials and methods.  
2020 – **Delphi Group**, [delphi.cmu.edu](http://delphi.cmu.edu)  
Member of the Delphi group’s COVIDcast project to acquire COVID data, make it accessible to researchers, and produce pandemic forecasts. Principal Investigator of Delphi’s US COVID-19 Trends and Impact Survey, which received 29.5m responses and has been used in over 50 publications; former co-leader of engineering team.  
2015 – **Spatio-temporal point processes**  
Pursuing research on the application of self-exciting point processes to model events, including applications modeling crime and wildfire risks.

## Publications

### Preprints and submissions

1. A. Reinhart. “The regressinator: a simulation tool for teaching regression assumptions and diagnostics in R,” 2024.
2. M. Ellingwood, A. Reinhart, D. P. Do, and R. Mejia. “Health concerns and government distrust: unraveling types of COVID-19 vaccine hesitancy in the US before and at universal vaccine eligibility,” 2024.
3. L. DeLuca, A. Reinhart, G. Weinberg, S. Miller, M. Laudénbach, and D. W. Brown. “Developing students’ statistical expertise through writing in the age of AI,” 2024.

## Journal articles

4. A. Reinhart, D. W. Brown, B. Markey, M. Laudenschach, and G. Weinberg. “Do LLMs write like humans? Variation in grammatical and rhetorical styles.” *Proceedings of the National Academy of Sciences* **122** (8), e2422455122, February 2025.  
DOI: 10.1073/pnas.2422455122. arXiv: 2410.16107.
5. C. Evans, A. Reinhart, E. Cooley, and W. Cipolli. “Learning while learning: psychology case studies for teaching regression.” *Journal of Statistics and Data Science Education*, 2025.  
DOI: 10.1080/26939169.2024.2441706.
6. M. Laudenschach, D. W. Brown, Z. Guo, S. Ishizaki, A. Reinhart, and G. Weinberg. “Visualizing formative feedback in statistics writing: an exploratory study of student motivation using DocuScope Write & Audit.” *Assessing Writing* **60**, 100830, April 2024.  
DOI: 10.1016/j.asw.2024.100830. SSRN: 4445888.
7. M. B. Reitsma, S. Rose, A. Reinhart, J. D. Goldhaber-Fiebert, and J. A. Salomon. “Bias-adjusted predictions of county-level vaccination coverage from the COVID-19 Trends and Impact Survey.” *Medical Decision Making* **44** (2), pp. 175–188, February 2024.  
DOI: 10.1177/0272989X231218024. medRxiv: 10.1101/2022.05.18.22275217.
8. O. Refy, B. Blanchard, A. Miller-Peterson, A. N. Dalrymple, E. H. Bedoy, A. Zaripova, N. Motaghedi, O. Mo, S. Panthangi, A. Reinhart, G. Torres-Oviedo, H. Geyer, and D. J. Weber. “Dynamic spinal reflex adaptation during locomotor adaptation.” *Journal of Neurophysiology* **130** (4), pp. 1008–1014, October 2023.  
DOI: 10.1152/jn.00248.2023.
9. A. Reinhart, C. Evans, A. Luby, J. Orellana, M. Meyer, J. Wiczorek, P. Elliott, P. Burckhardt, and R. Nugent. “Think-aloud interviews: a tool for exploring student statistical reasoning.” *Journal of Statistics and Data Science Education* **30** (2), pp. 100–113, July 2022.  
DOI: 10.1080/26939169.2022.2063209. arXiv: 1911.00535.
10. W. C. King, M. Rubinstein, A. Reinhart, and R. J. Mejia. “Time trends, factors associated with, and reasons for COVID-19 vaccine hesitancy: a massive online survey of US adults from January–May 2021.” *PLoS ONE* **16** (12), e0260731, December 2021.  
DOI: 10.1371/journal.pone.0260731. PMCID: PMC8691631.
11. W. C. King, M. Rubinstein, A. Reinhart, and R. J. Mejia. “COVID-19 vaccine hesitancy January–May 2021 among 18–64 year old US adults by employment and occupation.” *Preventive Medicine Reports* **24**, 101569, December 2021.  
DOI: 10.1016/j.pmedr.2021.101569. PMCID: PMC8474804.
12. A. Reinhart, L. Brooks, M. Jahja, A. Rumack, J. Tang, S. Agrawal, W. Al Saeed, T. Arnold, A. Basu, J. Bien, Á. A. Cabrera, A. Chin, E. J. Chua, B. Clark, S. Colquhoun, N. DeFries, D. C. Farrow, J. Forlizzi, J. Grabman, S. Gratzl, A. Green, G. Haff, R. Han, K. Harwood, A. J. Hu, R. Hyde, S. Hyun, A. Joshi, J. Kim, A. Kuznetsov, W. La Motte-Kerr, Y. J. Lee, K. Lee, Z. C. Lipton, M. X. Liu, L. Mackey, K. Mazaitis, D. J. McDonald, P. McGuinness, B. Narasimhan, M. P. O’Brien, N. L. Oliveira, P. Patil, A. Perer, C. A. Politsch, S. Rajanala, D. Rucker, C. Scott, N. H. Shah, V. Shankar, J. Sharpnack, D. Shemetov, N. Simon, B. Y. Smith, V. Srivastava, S. Tan, R. Tibshirani, E. Tuzhilina, A. K. Van Nortwick, V. Ventura, L. Wasserman, B. Weaver, J. C. Weiss, S. Whitman, K. Williams, R. Rosenfeld, and R. J. Tibshirani. “An open repository

- of real-time COVID-19 indicators.” *Proceedings of the National Academy of Sciences* **118** (51), December 2021.  
DOI: 10.1073/pnas.2111452118. PMID: PMC8713778. Special feature “Beyond Cases and Deaths: The Benefits of Auxiliary Data Streams in Tracking the COVID-19 Pandemic.”
13. J. A. Salomon, A. Reinhart, A. Bilinski, E. J. Chua, W. La Motte-Kerr, M. Rönn, M. B. Reitsma, K. A. Morris, S. LaRocca, T. H. Farag, F. Kreuter, R. Rosenfeld, and R. J. Tibshirani. “The US COVID-19 Trends and Impact Survey: Continuous real-time measurement of COVID-19 symptoms, risks, protective behaviors, testing, and vaccination.” *Proceedings of the National Academy of Sciences* **118** (51), December 2021.  
DOI: 10.1073/pnas.2111454118. PMID: PMC8713763. Special feature “Beyond Cases and Deaths: The Benefits of Auxiliary Data Streams in Tracking the COVID-19 Pandemic.”
  14. A. Reinhart and C. R. Genovese. “Expanding the scope of statistical computing: training statisticians to be software engineers.” *Journal of Statistics and Data Science Education* **29** (S1), S7–S15, March 2021.  
DOI: 10.1080/10691898.2020.1845109. arXiv: 1912.13076. Special issue on Computing in the Statistics and Data Science Curriculum.
  15. O. H. M. Padilla, A. Athey, A. Reinhart, and J. G. Scott. “Sequential nonparametric tests for a change in distribution: an application to detecting radiological anomalies.” *Journal of the American Statistical Association* **114** (526), pp. 514–528, 2019.  
DOI: 10.1080/01621459.2018.1476245. arXiv: 1612.07867.
  16. A. Reinhart and J. Greenhouse. “Self-exciting point processes with spatial covariates: modeling the dynamics of crime.” *Journal of the Royal Statistical Society: Series C* **67** (5), pp. 1305–1329, November 2018.  
DOI: 10.1111/rssc.12277. arXiv: 1708.03579.
  17. A. Reinhart. “A review of self-exciting spatio-temporal point processes and their applications.” *Statistical Science* **33** (3), pp. 299–318, August 2018.  
DOI: 10.1214/17-STS629. arXiv: 1708.02647. With invited discussion & rejoinder.
  18. W. Tansey, A. Athey, A. Reinhart, and J. G. Scott. “Multiscale spatial density smoothing: an application to large-scale radiological survey and anomaly detection.” *Journal of the American Statistical Association* **112** (519), pp. 1047–1063, October 2017.  
DOI: 10.1080/01621459.2016.1276461. arXiv: 1507.07271.
  19. A. Reinhart, V. Ventura, and A. Athey. “Detecting changes in maps of gamma spectra with Kolmogorov–Smirnov tests.” *Nuclear Instruments and Methods in Physics Research A* **802**, pp. 31–37, December 2015.  
DOI: 10.1016/j.nima.2015.09.002. arXiv: 1507.06954.
  20. A. Reinhart, A. Athey, and S. Biegalski. “Spatially-aware temporal anomaly mapping of gamma spectra.” *IEEE Transactions on Nuclear Science* **61** (3), pp. 1284–1289, June 2014.  
DOI: 10.1109/TNS.2014.2317593. arXiv: 1405.1135.
- Commentaries and popular press**
21. A. Reinhart and R. Tibshirani. “Big data, big problems: Responding to ‘Are we there yet?’” 2021. arXiv: 2109.00680.

22. A. Reinhart and D. S. Nagin. “The next step: a spatiotemporal statistical model of the birth and death of crime hotspots.” *Jerusalem Review of Legal Studies* **15** (1), pp. 55–60, June 2017. DOI: 10.1093/jrls/jlx007. URL: <https://www.refsmmat.com/files/papers/jrls.pdf>.
23. A. Reinhart. “Response to ‘Crime Places in Context’.” *Journal of Quantitative Criminology* **32** (4), pp. 723–724, December 2016. DOI: 10.1007/s10940-016-9299-4. Preprint: <https://doi.org/10.1184/R1/6586862.v1>.
24. J. Bernstein. “Not the last word: Inigo Montoya and statistical significance.” *Clinical Orthopaedics and Related Research* **474** (6), pp. 1370–1374, April 2016. DOI: 10.1007/s11999-016-4814-3. Invited commentary.
25. A. Reinhart. *Statistics Done Wrong*. No Starch Press, March 2015. ISBN: 978-1-59327-6201. URL: <https://www.statisticsonewrong.com>.
26. A. Reinhart. “Huff and puff.” *Significance* **11** (4), pp. 28–33, October 2014. DOI: 10.1111/j.1740-9713.2014.00765.x. Preprint: <https://doi.org/10.1184/R1/13120292.v1>.

### Theses

27. A. Reinhart. *Point Process Modeling with Spatiotemporal Covariates for Predicting Crime*. PhD thesis, Carnegie Mellon University, July 2018. DOI: 10.1184/R1/7178903.v1.
28. A. Reinhart. *An Integrated System for Gamma-Ray Spectral Mapping and Anomaly Detection*. Undergraduate thesis, University of Texas at Austin, April 2013. HDL: 2152/20071.

## Teaching

*Ordered by course level. MADS = Master of Science in Applied Data Science (formerly Statistical Practice). MSCF = Master of Science in Computational Finance. † indicates courses developed or redesigned.*

2015 – 2021	<p><b>36–750 Statistical Computing<sup>†</sup></b>          Ph.D. and MADS core course on software engineering, data structures, algorithms, and databases, with statistical applications. (Co-taught and co-developed with Christopher Genovese, 2015–2018.) Helped develop MADS-specific version, 36-650, taught by other instructors beginning in 2020.</p>
2019 – 2020, 2022, 2024	<p><b>36–707 Regression Analysis<sup>†</sup></b>          Ph.D. core course on regression analysis, including linear and nonparametric methods, generalized linear models, and an emphasis on data analysis practice through applied projects on real datasets.</p>
Spring 2019	<p><b>36–751 Advanced Statistical Computing<sup>†</sup>, (mini)</b>          Ph.D. and MADS elective project course on advanced statistical computing topics, including parallelization, distributed data processing, and neural networks.</p>
2018, 2024	<p><b>36–727 Modern Experimental Design<sup>†</sup>, (mini)</b>          Master’s- and Ph.D.-level elective introduction to experimental design, causality, and modern developments.</p>
2017 – 2019	<p><b>36–764 Teaching Statistics<sup>†</sup>, (mini)</b>          Reading and discussion course on topics in statistics education, pedagogy, and education research. Since Spring 2019, offered as professional training for Ph.D. students, postdocs, and junior faculty. (Co-taught and co-developed with Rebecca Nugent.)</p>

- 2022 – **36–614 Data Engineering and Distributed Environments<sup>†</sup>**, (*mini*)  
MADS core course on data engineering, databases, and cloud computing.
- 2023 – **36–615 Software for Large-Scale Data<sup>†</sup>**, (*mini*)  
MADS core course on distributed data analysis.
- 2023 **36–616 Computational Methods for Statistics<sup>†</sup>**, (*mini*)  
MADS core course on neural networks and other computational tools.
- 2019, 2021 – **46–927 Statistical Machine Learning II**, (*mini*)  
MSCF core course, including classification, dimension reduction, and deep learning for finance.
- 2024 **36–643 Introduction to Data Science Computing Workflows<sup>†</sup>**  
Introduction to R for CMU’s online Graduate Certificate in Foundations of Data Science.
- 2020 – 2022 **36–402 Advanced Methods for Data Analysis**  
Senior undergraduate course on statistical learning, generalized linear models, nonparametric regression, model selection, cross-validation, and bootstrapping.
- 2023 **36–401 Modern Regression**  
Advanced undergraduate course on linear regression and modeling for data analysis.
- Summer 2015 **36–309 Experimental Design for Behavioral and Social Sciences**
- Summer 2016 **36–225 Introduction to Probability Theory**
- Summer 2014 **36–201 Statistical Reasoning and Practice**

## Educational activities

- 2023 – **Data Repository**  
Developed the CMU Statistics & Data Science Data Repository for sharing real-world datasets for classroom use. Prepared data descriptions and suggested assignment questions for use in undergraduate and graduate courses.  
URL: <https://cmustatistics.github.io/data-repository/>
- 2022 – **regressinator**, *R package*  
Developed the regressinator, designed for pedagogical use conducting simulations of regression models, demonstrating diagnostic methods, and creating lineups of model diagnostic plots.  
URL: <https://www.refsmmat.com/regressinator/>
- 2012 – 2015 **Statistics Done Wrong**, *StatisticsDoneWrong.com*  
Wrote *Statistics Done Wrong*, a guide to statistical errors commonly committed by scientists, first published online and then expanded for print publication in March 2015 by No Starch Press. Over 45,000 copies sold; translated into German, Korean, Japanese, simplified and traditional Chinese, and Italian.  
“If you analyze data with any regularity but aren’t sure if you’re doing it correctly, get this book.”  
– *FlowingData*  
“Of all the books that tackle these issues... the most succinct, accessible and accurate” – *Science News*

## Presentations

### Conferences and workshops

- Aug. 2024 “State, Challenges, and Future of Teaching-Intensive Positions at R1 Universities”. Contributed panel session organized by Marcela Alfaro-Córdoba and Analisa Flores, with Joyce Fu, Uma Ravat, and Maria Tackett. (*Unable to attend due to illness*)

- Aug. 2022 Alex Reinhart. “Delphi’s COVIDcast Project: Lessons Learned Building Statistical Software in Real Time.” Invited session on “Computational Methods for Complex Data Challenges,” Joint Statistical Meetings, Washington, DC.
- May 2021 Frauke Kreuter, Samantha Chiu, Adrienne Bradford, Xiaoyi Deng, Alex Reinhart, Curtiss Cobb, Sarah LaRocca, Katherine Morris, and Alyssa Bilinski. “Emergency Survey Response: Leveraging partnerships for global representation.” American Association for Public Opinion Research 2021 Virtual Conference.
- Dec. 2019 Niccolò Dalmaso, Shamindra Shrotriya, and Alex Reinhart. “Predictive Inference of a Wildfire Risk Pipeline in the United States.” Tackling Climate Change with Machine Learning Workshop, NeurIPS, Vancouver, Canada. (*Spotlight talk. Presented by ND and SS.*)
- May 2019 P. Burckhardt, P.W. Elliott, C. Evans, K. Lin, A. Luby, M. Meyer, J. Orellana, R. Yurko, G. Weinberg, J. Wiczorek, R. Nugent, and A. Reinhart. “Using think-aloud interviews to assess student understanding of statistics concepts.” Breakout session, US Conference on Teaching Statistics, State College, PA.
- Nov. 2017 Alex Reinhart and Daniel S. Nagin. “A Spatio-Temporal Statistical Model of Crime Hotspots.” American Society of Criminology Annual Meeting, Philadelphia, PA.
- Oct. 2017 Alex Reinhart. “Point process modeling with spatiotemporal covariates for predicting crime.” (*Invited.*) Workshop on Social Interactions and Crime, University of Chicago, IL.
- Aug. 2016 Alex Reinhart, Xizhen Cai, and Joel Greenhouse. “Point process modeling with spatiotemporal covariates for predicting crime.” Joint Statistical Meetings, Chicago, IL.
- Oct. 2014 Alex Reinhart. “Statistics Done Wrong: Pitfalls of Experimentation.” (*Invited.*) The LASER Workshop, Washington, DC. <http://2014.laser-workshop.org/>

### Departmental seminars

- May 2023 **Department of Statistics, University of California, Santa Cruz**  
“The COVID-19 Trends and Impact Survey: Lessons for pandemic response and for the role of software in statistics.”
- Dec. 2021 **Department of Mathematics & Statistics, Swarthmore College**  
“CTIS: The COVID-19 Trends and Impact Survey.”
- Apr. 2021 **Department of Statistics, Oregon State University**  
“Delphi’s COVID Surveys: Tracking a Pandemic in Real Time.”
- Aug. 2020 **Department of Biostatistics, University of Pittsburgh**  
“Delphi COVIDcast: Publishing early indicators of COVID-19, from massive surveys and medical data.”

### Webinars and public events

- Jun. 2022 Alex Reinhart, Ciaran Evans, and Amanda Luby. “Think-Aloud Interviews: A Tool for Exploring Student Statistical Reasoning.” Consortium for the Advancement of Undergraduate Statistics Education/*Journal of Statistics and Data Science Education* webinar series.
- Jun. 2021 Frauke Kreuter and Alex Reinhart. “Insights on Vaccine Hesitancy and Healthcare Inequity from a Survey of Millions of Individuals in the US and Worldwide.” COPSS–NISS COVID-19 Data Science Webinar Series.
- Jan. 2021 Mine Çetinkaya-Rundel and Alex Reinhart. “Computing in the Statistics and Data Science Curriculum,” a panel discussion moderated by Nicholas Horton. Consortium for the Advancement of Undergraduate Statistics Education/*Journal of Statistics and Data Science Education* webinar series.

Jun. 2020 Curtiss Cobb, Frauke Krauter, and Alex Reinhart. “Support for COVID-19 research through the Symptom Surveys.” UIDP Webinar. <https://uidp.org/webinar/webinar-recording-covid-research-symptom-surveys/>

### Posters

- May 2023 Mashrin Srivastava, Alex Reinhart, and Robin Mejia. “Predicting COVID-19 case status from self-reported symptoms and behaviors using data from a massive online survey.” Machine Learning & Global Health workshop, ICLR, Kigali, Rwanda.
- May 2020 Mikaela Meyer, Josue Orellana, and Alex Reinhart. “Using Cognitive Task Analysis to Uncover Misconceptions in Statistical Inference Courses.” eCOTS 2020.
- May 2020 C. Evans, A. Reinhart, P. Burckhardt, R. Nugent, and G. Weinberg. “Exploring How Students Reason about Correlation and Causation.” eCOTS 2020.
- Nov. 2019 P. Burckhardt, P.W. Elliott, C. Evans, A. Luby, M. Meyer, J. Orellana, J. Wiecek, R. Nugent, and A. Reinhart. “Writing Practical Pre- and Post-Tests for Concepts in Introductory Courses.” CMU Eberly Teaching and Learning Summit, Pittsburgh, PA.
- July 2019 Mikaela Meyer, Josue Orellana, and Alex Reinhart. “Using Think-Aloud Interviews and Cognitive Task Analysis to Identify Misconceptions in Undergraduate Statistics Education.” Joint Statistical Meetings, Denver, CO. (*Presented by M. Meyer.*)
- Oct. 2018 P. Burckhardt, P.W. Elliott, C. Evans, S. Hyun, K. Lin, A. Luby, C.P. Makris, M. Meyer, J. Orellana, R. Yurko, G. Weinberg, J. Wiecek, R. Nugent, and A. Reinhart. “Developing an assessment for concepts in introductory statistics and data science.” CMU Eberly Teaching and Learning Summit, Pittsburgh, PA. (*People’s Choice Award winner*)
- May 2018 S. Hyun, P. Burckhardt, P.W. Elliott, C. Evans, K. Lin, A. Luby, C.P. Makris, J. Orellana, A. Reinhart, J. Wiecek, R. Yurko, G. Weinberg, and R. Nugent. “Identifying misconceptions of introductory data science using a think-aloud protocol.” eCOTS 2018.
- Mar. 2018 Alex Reinhart and Joel Greenhouse. “Point Process Modeling with Spatiotemporal Covariates for Predicting Crime.” Pittcon, Orlando, FL.
- Oct. 2017 P. Burckhardt, P.W. Elliott, S. Hyun, K. Lin, A. Luby, C.P. Makris, J. Orellana, A. Reinhart, J. Wiecek, G. Weinberg, and R. Nugent. “Assessment of Student Learning and Misconception Identification in Intro Statistics.” CMU Eberly Teaching and Learning Summit, Pittsburgh, PA.

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### Funding

- Nov. 2023 **Dietrich College Seed Grant**, *Carnegie Mellon University*  
Knowing by Number: The Development of Statistical Sciences and the Making of the Modern World. (Co-PI with Joel Greenhouse, Christopher Phillips, Alex London, and Whitney Laemml.)
- October 2022 **Dietrich College Seed Grant**, *Carnegie Mellon University*  
Pilot study to adapt DocuScope Write & Audit to give feedback on student writing in statistics courses. (Led by David Brown, Department of English, with Mike Laudenbach, Gordon Weinberg, and Philipp Burckhardt.)
- May 2020 **Simon Initiative Seed Grant**, *Carnegie Mellon University*  
“Data-driven technology-enhanced learning for statistics and data science.” PI with co-PI Gordon Weinberg. (Project suspended due to COVID-19 pandemic.)
- 2016 – 2018 **Graduate Research Fellowship (GRF-STEM)**, *National Institute of Justice*, \$50,000/yr

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## Student advising

### Ph.D. dissertation committee

- 2021 – 2024 **Michael Laudenschlager**, *Department of English*, Carnegie Mellon University  
Studying linguistic characteristics of a corpus of student writing in statistics, to learn how to better teach statistical writing. Committee chaired by David Brown.
- 2022 **Shamindra Shrotriya**, *Department of Statistics & Data Science*, Carnegie Mellon University  
“On Some Problems in Location-Scale and Shape Constrained Estimation.” Committee chaired by Matey Neykov. (Previously worked on a project developing a statistical model of wildfire risk, using point processes and conditional density estimation and supported by the 2020 American-Australian Association Wildfire Research Scholarship.)

### Ph.D. Advanced Data Analysis projects

- 2022 **Meg Ellingwood**, *Department of Statistics & Data Science*, Carnegie Mellon University  
Using COVID-19 Trends and Impact Survey data to study disparities in vaccine hesitance and uptake. Co-advised with Robin Mejia.
- 2022 – 2023 **Selina Carter**, *Department of Statistics & Data Science*, Carnegie Mellon University  
Using COVID-19 Trends and Impact Survey data to study occupational risk related to COVID. Co-advised with Robin Mejia.

### Undergraduate theses

- Eric Shau, *Quantitative Social Science Scholars*, 2024–2025
- Kezhen Zhao, *Quantitative Social Science Scholars*, 2020–2021

### Independent study

- Luning Lei, *BS Statistics & Data Science*, 2024
- Best Pantusen, *BS Statistics & Data Science*, 2024
- Mashrin Srivastava, *MS Machine Learning*, 2021–2022
- Eu Jing Chua, *MS Machine Learning*, 2021

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## Honors and awards

- May 2022 **Policy Impact Award**, American Association for Public Opinion Research (AAPOR)  
Awarded to the Delphi Group, the University of Maryland, and Facebook/Meta in recognition of the policy impact of the COVID-19 Trends and Impact Survey worldwide.
- May 2022 **Warren J. Mitofsky Innovators Award**, AAPOR  
Awarded to the Delphi Group, the University of Maryland, and Facebook/Meta for the COVID-19 Trends and Impact Survey’s “novel use of social media and best survey practices at a global scale and enterprise speed to collect timely, critical data through a public-private partnership”.
- April 2022 **Allen Newell Award for Research Excellence**, School of Computer Science, Carnegie Mellon University  
Awarded to the Delphi Group “for advancing the theory and practice of epidemic tracking and forecasting, and enabling national collaborative scientific response.”
- July 2021 **Statistical Partnerships among Academe, Industry, and Government Award**, American Statistical Association  
Awarded to the Delphi Group, the Centers for Disease Control, Optum, Google, Facebook, Change Healthcare, and Quidel for our work on the COVID-19 pandemic.
- May 2017 Carnegie Mellon Department of Statistics Student Teaching Award
- 2013 – Member, Phi Beta Kappa and Sigma Pi Sigma physics honors society



- 2009 – 2013 C. Benson Branch Science Scholarship  
2009 – 2013 Natural Sciences 21st Century Endowed Presidential Scholarship

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## Service

### Department service

- 2022 – Chair, Master of Science in Applied Data Science (MADS) Admissions Committee  
2022 – MADS Program Committee  
2022 – Ph.D. Data Analysis Exam Committee  
2019 – 2020, Computing Committee  
2021 –  
2022 – 2023 Data Repository Working Group  
2018 – 2019 Strategic Planning Committee  
2018 – 2019 Master’s in Statistical Practice Futures Committee

### College and university service

- 2024 Working group member, Improving the Faculty Course Evaluation (FCE) Experience  
2023 – Dietrich College Generative AI Liaison

### Professional service

- 2023 – Associate Editor, *Journal of Statistics and Data Science Education*  
– Peer reviewer for *Annals of Applied Statistics*; *Journal of the American Statistical Association*; *Journal of the Royal Statistical Society: Series C*; *Spatial Statistics*; *Statistics in Medicine*; *Statistics and Computing*; *Journal of Statistics and Data Science Education*; *Journal of Quantitative Criminology*; *PLOS Computational Biology*; *Nature*; *Proceedings of the National Academy of Sciences*; *International Journal of Forecasting*; *Statistics and Public Policy*; *Statistical Methods & Applications*; *Harvard Data Science Review*; *Preventive Medicine Reports*; *ACM Computing Surveys*; *Journal of Business & Economic Statistics*; *IEEE Transactions on Signal Processing*; *Ecological Modelling*; *International Journal of Geographical Information Science*; *Scientific Reports*; *EPJ Data Science*; *Gates Open Research*; *Manufacturing and Service Operations Management*; *Geographical Analysis*; and *Health Education Journal*  
– Grant review panelist for National Science Foundation, Marsden Fund, Climate Change AI

*Last updated February 18, 2025.*