

Matthew D. Koslovsky, PhD

matt.koslovsky@colostate.edu
Personal Website - GitHub - Google Scholar

Updated March 2026

RESEARCH INTERESTS

Theory and Methods: Bayesian modeling, variable selection, graphical models, non-parametric Bayes, statistical computing, multistate Markov models, R package development, functional data analysis, hidden Markov models, variational inference, joint modeling, compositional data analysis, data augmentation

Application: cancer prevention, smoking behaviors, mental health, addiction, physical activity, nutrition, microbiome, mHealth, ecological momentary assessment, intensive longitudinal data, environmental health, human health and performance in space, ecology, causal inference, personalized intervention design

EDUCATION

The University of Texas Health Science Center, Houston, TX
Doctor of Philosophy, Biostatistics, GPA: 4.0/4.0 Dec 2016
· Minor: Health Promotions and Behavioral Sciences
· Title: Deterministic Bayesian variable selection developments for binary outcomes
· Advisor: Michael D. Swartz, PhD

The University of Texas, Austin, TX
Bachelor of Science, Mathematics Aug 2011
· Concentration: Scientific Computation

EXPERIENCE

Colorado State University, Fort Collins, CO
Assistant Professor Aug 2020 - Current
· Department of Statistics
Affiliate Faculty
· Cell & Molecular Biology Program
· One Health Institute
· Data Science Research Institute
· Colorado State Microbiome Network (CoSMic)

Colorado School of Public Health, Denver, CO
Adjoint Assistant Professor Nov 2025 - Current
· Department of Biostatistics & Informatics

Rice University, Houston, TX
Adjunct Professor Aug 2021 - Current
· Department of Statistics

Rice University, Houston, TX
Post-Doctoral Research Associate March 2018 - July 2020
· NSF/RTG Post-Doctoral Fellowship in Data Science
· Advisor: Marina Vannucci, PhD

KBRwyle, Houston, TX
Biostatistician July 2016 - March 2018
· Human Health and Performance Contract
· Johnson Space Center

The University of Texas Health Science Center, Houston, TX
 Pre-Doctoral Fellow Jan 2015 - Dec 2016
 · National Cancer Institute Pre-Doctoral Fellowship
 · Cancer Education and Career Development Program

Pre-Doctoral Trainee Aug 2013 - Jan 2015
 · National Institutes of Health Pre-Doctoral Traineeship

Science Systems and Applications, Inc., Hampton, VA
 Summer Intern May 2014 - Aug 2014
 · DEVELOP National Program
 · Langley Research Center

National Space Biomedical Research Institute, Houston, TX
 Summer Apprentice May 2013 - Aug 2013
 · Biostatistics Laboratory
 · Johnson Space Center

Cancer Prevention and Research Institute of Texas, Austin, TX
 Summer Intern May 2010 - Oct 2010
 · University of Texas School of Public Health
 · Biostatistics Department

AWARDS

- Early Career Faculty Excellence in Teaching and/or Mentoring Award, College of Natural Sciences, CSU, 2024
- NSF MPS Workshop for Young Investigators Travel Award, Alexandria, VA, 2023
- IMS New Researchers Conference Travel Award, Fairfax, VA, 2022
- The Best of Annals of Applied Statistics Paper Award, Joint Statistical Meetings, Virtual Conference, 2021
- Dr. M. Stewart West Memorial Scholarship, 2015
- UHealth Division of Biostatistics Travel Award, 2015
- Richard D. Remington Memorial Student Scholarship, 2014
- Robert H. Bigelow Endowed Scholarship, 2013

PUBLICATIONS

Submitted/In Progress

34. Erlandson, B.* , Wilson, A. and **Koslovsky, M.D.** A Bayesian Functional Concurrent Zero-Inflated Dirichlet-Multinomial Regression Model with Application to Infant Microbiome. (In revisions)
33. Kim, H.* , Kaplan, A., and **Koslovsky, M.D.** A Comprehensive Bayesian Approach to Entity Resolution for Data with Multiple Truths. (Submitted)
32. Janiszewski, L.N. 1, Sachdeva, N., Schmaljohn, E., Chaparro, Jacqueline., Diaz, G., Topp, J., Downey, N., Broeckling, C., **Koslovsky, M.D.**, Prenni, J., De Long, S.K. Functional gene Amplicon Sequencing test (FAST): A rapid metagenomic-enabled method for development of multiple biomarkers of TORC biodegradation. (In Progress)
31. Korsurat, S.* and **Koslovsky, M.D.** An R package for Sparse Dirichlet-Multinomial Models. (In Progress)

30. Korsurat, S.* , **Koslovsky, M.D.**, and Irvine, K. Multispecies Occupancy Models with Ambiguous Validation Data. (In Progress)
29. Maulik, A.* , **Koslovsky, M.D.**, Zhou, T. Hierarchical Semiparametric Mixture Models. (In Progress)
28. Erlandson, B.* , Qian, T., Wilson, A. and **Koslovsky, M.D.** Bayesian nonparametric causal excursion effect models. (In Progress)
27. **Koslovsky, M.D.**, and Zhou, T. Bayesian spiked nonparametric priors for historical borrowing. (In Progress)

Statistical Methodology

26. **Koslovsky, M.D.**, Kaplan, A., Terranova, V.A., and Hooten, M.B. (2025+). A Unified Bayesian Framework for Modeling Measurement Error in Multinomial Data. *In Press: Bayesian Analysis*. <https://arxiv.org/abs/2310.09345>
25. Korsurat, S.* and **Koslovsky, M.D.** (2025). A Bayesian Semiparametric Mixture Model for Clustering Zero-Inflated Microbiome Data. *Biometrics: Biometric Practice*, **81(3)**.
24. **Koslovsky, M.D.** (2025). Analyzing Microbiome Data with Taxonomic Misclassification using a Zero-Inflated Dirichlet-Multinomial Model. *BMC Bioinformatics*, **26(69)**.
23. **Koslovsky, M.D.**, Pettee Gabriel, K., Businelle, M.S., Wetter, D.W., and Kendzor, D.E. (2025). Dynamic Functional Variable Selection for Multimodal mHealth Data. *Bayesian Analysis*, **20(2)**, 599-626.
22. Yu, D.* , **Koslovsky, M.D.**, Steiner, M.C., Mohammadi, K., Zhang, C., Swartz, M.D. (2024). TRIO_RVEMVS: A Bayesian Framework for Rare Variant Association Analysis with Expectation-Maximization Variable Selection using Family Trio Data. *PloS One*, **19(12)**.
21. Liang, M.* , **Koslovsky, M.D.**, Hébert, E.T., Kendzor, D.E., and Vannucci, M. (2024). A Bayesian Nonparametric Approach for Clustering Functional Trajectories over Time. *Statistics and Computing*. **34(6)**, 215.
20. Van Ee, J.J.* , Hagen, C.A., Pavlacky, D.C., Haukos, D.A., Lawrence, A.J., Tanner, A.M., Grisham, B.A., Fricke, K.A., Rossi, L.G., Beauprez, G.M., Kukulinski, K.E., Matrin, R., **Koslovsky, M.D.**, Rintz, T.B., and Hooten, M.B. (2024). Melded Integrated Population Models. *Journal of Agricultural, Biological, and Environmental Statistics*, **1(1)**, 1-31.
19. Van Ee, J.J.* , Hagen, C.A., Pavlacky, D.C., Fricke, K.A., **Koslovsky, M.D.**, and Hooten, M.B. (2023). Melding Wildlife Surveys to Improve Conservation Inference. *Biometrics: Biometric Practice*, **79(4)**, 3941-4953.
18. Liang, M.* , **Koslovsky, M.D.**, Hébert, E.T., Businelle, M.S., and Vannucci, M. (2023). Functional Concurrent Regression Mixture Models Using Spiked Ewens-Pitman Attraction Priors. *Bayesian Analysis*, **1(1)**, 1-29.
17. Fu, J.* , **Koslovsky, M.D.**, Neophytou, A.M., and Vannucci, M. (2023). A Bayesian Joint Model for Mediation Effect Selection in Compositional Microbiome Data. *Statistics in Medicine*, **42(17)**, 2999-3015.
16. **Koslovsky, M.D.** (2023). A Bayesian Zero-Inflated Dirichlet-Multinomial Regression Model for Multivariate Compositional Count Data. *Biometrics: Biometric Methodology*, **79(4)**, 3239-3251.

15. Hoskovec, L.* , **Koslovsky, M.D.**, Koehler, K., Peel, J.L., Volckens, J., and Wilson, A. (2022). Infinite Hidden Markov Models for Multiple Multivariate Time Series with Missing Data. *Biometrics: Biometric Practice*, **79(3)**, 2592-2604. [**Honorable mention in the ENVR Student Paper Competition for the Joint Statistical Meetings 2021**]
14. Liang, M.* , **Koslovsky, M.D.**, Hébert, E.T., Kendzor, D.E., Businelle, M.S., and Vannucci, M. (2021). Bayesian Continuous-Time Hidden Markov Models with Covariate Selection for Intensive Longitudinal Data with Measurement Error. *Psychological Methods*, **28(4)**, 880-894.
13. **Koslovsky, M.D.** and Vannucci, M. (2021). Dirichlet-Multinomial Regression Models with Bayesian Variable Selection for Microbiome Data. *Statistical Analysis of Microbiome Data*. Springer, Cham, 249-270.
12. **Koslovsky, M.D.**, Hébert, E.T., Businelle, M.S., and Vannucci, M. (2020). A Bayesian Time-Varying Effect Model for Behavioral mHealth Data. *Annals of Applied Statistics*, **14(4)**, 1878-1902.
11. **Koslovsky, M.D.** and Vannucci, M. (2020). MicroBVS: Dirichlet-Tree Multinomial Regression Models with Bayesian Variable Selection - An R Package. *BMC Bioinformatics*, **21(301)**.
10. **Koslovsky, M.D.**, Hoffman, K., Daniel, C., and Vannucci, M. (2020). A Bayesian Model of Microbiome Data for Simultaneous Identification of Covariate Associations and Prediction of Phenotypic Outcomes. *Annals of Applied Statistics*, **14(3)**, 1471-1492. [**Selected for presentation as “The Best of AOAS” at the Joint Statistical Meetings 2021**]
9. **Koslovsky, M.D.**, Swartz, M.D., Chan, W., Leon-Novelo, L., Wilkinson, A.V., Kendzor, D.E., and Businelle, M.S. (2018). Bayesian Variable Selection for Multistate Markov Models with Interval-Censored Data in an Ecological Momentary Assessment Study of Smoking Cessation. *Biometrics: Biometric Practice*, **74(2)**, 636-644.
8. **Koslovsky, M.D.**, Swartz, M.D., Leon-Novelo, L., Chan, W., and Wilkinson, A.V. (2018). Using the EM Algorithm for Bayesian Variable Selection in Logistic Regression Models with Related Covariates. *Journal of Statistical Computation and Simulation*, **88(3)**, 575-596.

Applications

7. WeMott, S.* , Kuiper, G., Martenies, S.E., **Koslovsky, M.D.**, Allshouse, W.B., Adgate, J.L., Starling, A.P., Dabelea, D., and Magzamen, S. (2025+). Evaluating Statistical Methods to Predict Indoor Black Carbon in an Urban Birth Cohort. *Indoor Environments*.
6. Rosenberg, M.J., **Koslovsky, M.D.**, Noyes, M., Reschke, M.F., and Clément, G. (2022) Tandem Walk in Simulated Martian Gravity and Visual Environment. *Brain Sciences*, **12(1268)**, 1-22.
5. Zwart, S.R., Rice, B.L., Dlouhy, H., Shackelford, L.C., Heer, M., **Koslovsky, M.D.**, and Smith, S.M. (2018). Dietary Acid Load and Bone Turnover During Long-Duration Spaceflight and Bed Rest. *The American Journal of Clinical Nutrition*, **107(5)**, 834-844.
4. Conkin, J., Sanders, R.W., **Koslovsky, M.D.**, Wear, M.L., Kozminski, A.G., and Abercromby, A.F. (2018). A Systematic Review and Meta-Analysis of Decompression Sickness in Altitude Physiological Training. *Aerospace Medicine and Human Performance*, **89(11)**, 941-951.

3. **Koslovsky, M.D.**, Hébert, E.T., Swartz, M.D., Chan, W., Leon-Novelo, L., Wilkinson, A.V., Kendzor, D.E. and Businelle, M.S. (2017). The Time-Varying Relations Between Risk Factors and Smoking Before and After a Quit Attempt. *Nicotine and Tobacco Research*, **20(10)**, 1231-1236.
2. Conkin, J., Wessel, J.H., Norcross, J.R., Bekdash, O.S., Abercromby, A.F., **Koslovsky, M.D.**, and Gernhardt, M.L. (2017). Hemoglobin Oxygen Saturation with Mild Hypoxia and Microgravity. *Aerospace Medicine and Human Performance*, **88(6)**, 527-534.

Proceedings

1. Meyers, J., Garcia, Y., Arellano, J., Boley, L., Goodenow D., Kerstman, E., **Koslovsky, M.D.**, Reyes, D., Saile, L., Taiym, W., and Young, M. (2018, September 16-21). Validation of the NASA Integrated Medical Model: A Space Flight Medical Risk Prediction Tool. Paper presented at *Probabilistic Safety Assessment and Management 14*, Los Angeles, CA.
* - indicates PhD student

GRANTS

Pending

- **Koslovsky, M.D. (sole-PI)**. *Sustainable Statistical Computing*, CSU School of Global Environmental Sustainability: 2026-2027 Sustainability Curriculum Innovation Grant, Submitted 4/2026, (\$5,000).
- **Koslovsky, M.D. (sole-PI)**. *Flexible Bayesian Methods for Zero-Inflated Microbiome Data to Understand Microbial Community Dynamics and Function*, NIH - R35, Submitted 10/2025, (\$1,875,812).
- **Koslovsky, M.D. (sole-PI)**. *CAREER: Robust Bayesian Learning for Extracting and Sharing Knowledge from Modern Ecological Data*, NSF-DMS, Submitted 7/2025, (\$586,354).

Funded

- **Koslovsky, M.D. (sole-PI)**. *CESU-RM: Advancing Bayesian Statistical Methods for Bat Acoustic Data*, USGS, 8/2024-07/2025, (\$100,000).
- **Koslovsky, M.D. (sole-PI)**. *Bayesian Sparse Dirichlet-Multinomial Models for Discovering Latent Structure in High-Dimensional Compositional Count Data*, NSF/DMS - CDSE-MSS, Award number: 2245492, 9/2023 - 8/2026, (\$165,000).
- **Koslovsky, M.D. (sole-PI)**. *Methods Developments for High-Dimensional Microbiome Data*, Center for Interdisciplinary Mathematics and Statistics (CIMS) - Seed/Pilot Funding, Awarded 5/2022, (\$2,500).
- **Koslovsky, M.D. (PI)**. *CESU-RM: Integrated Population Model for the Conservation of the Lesser Prairie-Chicken*, USDA-NRCS-Natural Resources Conservation Service, 9/2020-9/2023, (\$92,136). [Took over when original PI left CSU]
- De Long, S., Prenni, J., and **Koslovsky, M.D. (co-PI)**. *Metagenomic-Enabled Rapid Development of Multiple Biomarkers for Trace Organic Contaminant Biodegradation through Functional Gene Amplicon Sequencing Tests (FAST)*, NSF/CBET - EnvE, 8/2020-7/2024, (\$330,000). [Took over when original co-PI left CSU]

CONSULTING

Pending

- Andrew Abercromby, A., Daniel Buckland, D., Andrew Pilmanis, A., **Koslovsky, M.D. (Lead Biostatistician)**, Alexander, A., and Kammermeier, L. *XDCS: X-3PO Decompression Sickness Model*, NASA Solicitation 80JSC026Q0001 Space-flight Decompression Sickness (DCS) Risk Prediction Model, Submitted 02/2026.

PRESENTATIONS

- “A Comprehensive Bayesian Approach to Entity Resolution for Data with Multiple Truths,” JSM, Boston, MA, 8/2026. (Contributed Talk)
- “A Comprehensive Bayesian Approach to Entity Resolution for Data with Multiple Truths,” ISBA, Nygoya, Japan, 7/2026. (Invited Talk)
- “A Bayesian Semiparametric Mixture Model for Clustering Zero-Inflated Microbiome Data,” 19th International Joint Conference on Computational and Financial Econometrics and Computational and Methodological Statistics, London, UK, 12/2025. (Invited Talk)
- “Modeling Measurement Error in Official Crime Data,” 8th International Conference on Econometrics and Statistics, Tokyo, Japan, 08/2025. (Invited Talk)
- “Sparse Dirichlet-Multinomial Models for Microbiome Data,” ASA’s NSF@75 Virtual Conference, Virtual, 07/2025. (Invited Talk)
- “Dynamic Functional Variable Selection for Multimodal mHealth Data,” 14th International Conference on Bayesian Nonparametrics, Los Angeles, CA, 06/2025. (Contributed Talk)
- “A Bayesian Framework for Modeling Imperfect Detection in Ecological Data,” NOAA Integrated Data Analysis Working Group, Virtual, 1/2025. (Invited Talk)
- “A Bayesian Zero-Inflated Dirichlet-Multinomial Regression Model for Multivariate Compositional Count Data,” Special Conference on Biostatistics in the New Era of Data-Driven Sciences, 55th Anniversary of The Department of Biostatistics and Data Science at UHealth-Houston SPH, Houston, TX, 11/2024. (Invited Talk & Professional Development in Academia and Research Centers Panelist)
- “Sparse Dirichlet-Multinomial Models,” University of Texas, Austin, Department of Statistics and Data Sciences. 10/2024. (Departmental Seminar)
- “A Bayesian Zero-Inflated Dirichlet-Multinomial Regression Model for Multivariate Compositional Count Data,” International Biometric Society (IBS) Journal Club, 08/2024. (Invited Talk)
- “Measurement Error in Microbiome Data,” Joint Statistical Meetings, Portland, OR, 8/2024. (Invited Talk)
- “A Bayesian Framework for Modeling Imperfect Detection in Ecological Data,” WNAR, Fort Collins, CO, 6/2024. (Invited Talk)
- “Bayesian Methods for Microbiome Data,” University of California, Los Angeles, Department of Biostatistics, 2/2024. (Departmental Seminar)
- “Bayesian Methods for Microbiome Data,” University of California, Irvine, Department of Statistics. 2/2024. (Departmental Seminar)
- “Bayesian Methods for Microbiome Data,” BYU, Department of Statistics, 1/2024. (Departmental Seminar)
- “A Unified Bayesian Framework for Modeling Measurement Error in Multinomial Data,” EnviBayes Workshop on Complex Environmental Data, Fort Collins, CO, 9/2023. (Invited Talk)

- “A Bayesian Zero-Inflated Dirichlet-Multinomial Regression Model for Multivariate Compositional Count Data,” WNAR, Anchorage, AK, 6/2023. (Invited Talk)
- “A Bayesian Zero-Inflated Dirichlet-Multinomial Regression Model for Multivariate Compositional Count Data,” CMStatistics, London, UK, 12/2022. (Invited Talk)
- “Dynamic Functional Variable Selection for Multimodal mHealth Data,” IMS NRC Conference, Fairfax, VA, 8/2022. (Invited Speed Talk and Poster Presentation)
- “Dynamic Functional Variable Selection for Multimodal mHealth Data,” ISBA, Montreal, Quebec, 6/2022. (Contributed Poster Presentation)
- “Bayesian Methods for Intensive Longitudinal Data Collected in MHealth Studies,” ENAR, Houston, TX, 3/2022. (Invited Talk and Session Organizer)
- “A Bayesian Model of Microbiome Data for Simultaneous Identification of Covariate Associations and Prediction of Phenotypic Outcomes,” **Best of AOAS**, Joint Statistics Meetings, Seattle, WA, 8/2021. (Invited Talk)
- “A Bayesian Model of Microbiome Data for Simultaneous Identification of Covariate Associations and Prediction of Phenotypic Outcomes.” ISBA, virtual conference, 7/2021. (Contributed Talk)
- “A Bayesian Model of Microbiome Data for Simultaneous Identification of Covariate Associations and Prediction of Phenotypic Outcomes,” CMStatistics, virtual conference, 12/2020. (Invited Talk)
- “A Bayesian Model of Microbiome Data for Simultaneous Identification of Covariate Associations and Prediction of Phenotypic Outcomes,” ICSA Applied Statistics Symposium, virtual conference, 12/2020. (Invited Talk)
- “A Bayesian Model of Microbiome Data for Simultaneous Identification of Covariate Associations and Prediction of Phenotypic Outcomes,” BAYSM:O, virtual conference, 12/2020. (Invited Talk)
- “Bayesian Methods for Behavioral mHealth Data.” Colorado State University, Department of Statistics, 2/2020. (Departmental Seminar)
- “Bayesian Methods for Behavioral mHealth Data,” University of Colorado Denver, Department of Biostatistics & Informatics, 2/2020. (Departmental Seminar)
- “Bayesian Methods for Behavioral mHealth Data,” University of Missouri, Department of Statistics, 2/2020. (Departmental Seminar)
- “Bayesian Methods for Behavioral mHealth Data,” Montana State University, Department of Mathematical Sciences, 1/2020. (Departmental Seminar)
- “Bayesian Methods for Behavioral mHealth Data,” Kaiser Permanente Washington Health Research Institute, Biostatistics Unit, 1/2019. (Invited Seminar)
- “A Bayesian Model of Microbiome Data for Simultaneous Identification of Covariate Associations and Prediction of Phenotypic Outcomes,” iBright, Houston, TX, 11/2019. (Contributed Poster Presentation)
- “A Bayesian Model of Microbiome Data for Simultaneous Identification of Covariate Associations and Prediction of Phenotypic Outcomes,” Joint Statistics Meetings, Denver, CO, 8/2019. (Contributed Poster Presentation)
- “A Bayesian Model of Microbiome Data for Simultaneous Identification of Covariate Associations and Prediction of Phenotypic Outcomes,” BigDIA, Houston, TX, 12/2018. (Contributed Poster Presentation)

- “CommClust: A network-based algorithm for clustering multivariate repeated measures data,” NASA Human Research Program Investigators’ Workshop. Galveston, TX, 1/2018. (Contributed Poster Presentation)
- “Immersive Data Analysis for NASA Biomedical Data,” Rice Data Science Conference, Houston, TX, 10/2017. (Contributed Oral Presentation)
- “Immersive Data Analysis for NASA Biomedical Data,” Texas Collaboration Center Data Analytics Workshop, Houston, TX, 10/2017 (Contributed Oral Presentation)
- “A Network-based Algorithm for Clustering Multivariate Longitudinal Data,” Joint Statistical Meetings. Baltimore, MD, 8/2017. (Contributed Oral Presentation)
- “Deterministic Bayesian Variable Selection for Multistate Models with Applications to Ecological Momentary Assessment of an Attempt to Quit Smoking,” Joint Statistical Meetings. Chicago, IL, 8/2016. (Contributed Oral Presentation)
- “Deterministic Bayesian Variable Selection for Binary Outcomes,” Joint Statistical Meetings. Seattle, WA, 8/2015. (Contributed Oral Presentation)
- “New England Water Resources - Historical Tracking of Harmful Algal Blooms Using Landsat Missions from 1984-2014,” DEVELOP Summer Closeout at NASA Headquarters. Washington, D.C., 8/2014. (Contributed Poster Presentation)

SOFTWARE

- Kim, H.* , Kaplan, A., and **Koslovsky, M.D.** *chomper: A Comprehensive Hit or Miss Probabilistic Entity Resolution Model*. R package version 0.1.3. 2026. CRAN
- Erlandson, B.* , Wilson, A., and **Koslovsky, M.D.** *FunCZIDM: Functional Concurrent Zero-Inflated Dirichlet-Multinomial Regression*. R package version 0.1.0. 2025. GitHub
- Korsurat, K.* and **Koslovsky, M.D.** *DSDM3: A Bayesian semiparametric mixture model for clustering zero-inflated microbiome data*. R package version 0.1.0. 2025. GitHub
- Liang, M.* , **Koslovsky, M.D.**, and Vannucci, M. *EPAbvs: Functional concurrent regression model with spiked-EPA prior*. R package version 0.1.0. 2024. GitHub
- Liang, M.* , **Koslovsky, M.D.**, and Vannucci, M. *hDFPmcmc: Hierarchical dynamic functional partition*. R package version 0.1.0. 2023. GitHub
- Liang, M.* , **Koslovsky, M.D.**, and Vannucci, M. *HMMbvs: Bayesian variable selection for HMM and MSM models*. R package version 0.1.0. 2023. GitHub
- **Koslovsky, M.D.** and Vannucci, M. *MicroBVS: Dirichlet-Multinomial regression models with Bayesian variable selection for microbiome data*. R package version 0.1.0. 2020. GitHub
- **Koslovsky, M.D.** and Vannucci, M. *PGBVS: BVS for logistic regression models with varying-coefficients using spiked Dirichlet processes*. R package version 0.1.0. 2019. GitHub

TEACHING EXPERIENCE *Colorado State University*, Department of Statistics

Statistical Data Analysis I (STAT 341)	Fall 2024
Applied Bayesian Statistics (STAA 575)	Spring 2022, 2023, 2026
Regression Models for Researchers (STAR 513)	Spring 2022, 2023, 2026
Data Analysis and Regression (STAT 540)	Fall 2021, 2022, 2023
Statistical Computing (STAT 600)	Spring 2021, 2024, Fall 2025
Logistic/Survival Analysis for Epidemiology (STAR 580A1)	Fall 2020

UTHealth, Department of Biostatistics and Data Science

Lecturer (Ad Hoc), Foundations of Biostatistics (PH1690)	Fall 2019
Lecturer (Ad Hoc), Foundations of Biostatistics (PH1690)	Summer 2019
Teaching Assistant, Theory of Biostatistics II (PH1911)	Spring 2016
Teaching Assistant, Linear Models (PH1915)	Fall 2015
Teaching Assistant, Intermediate Biostatistics (PH1700)	Fall 2015
Teaching Assistant, Applied Statistical Analysis I (PH1820)	Summer 2015
Teaching Assistant, Applied Statistical Analysis II (PH1821)	Spring 2013

COURSE DEVELOPMENT *Colorado State University*, Department of Statistics

Introduction to R (STAT 159)	Summer 2022
------------------------------	-------------

MENTORING **PhD Advisor**

- Brody Erlandson, Colorado State University, PhD Statistics, 06/2023-Current (Co-Advised by Dr. Ander Wilson)
- Kevin Korsurat, Colorado State University, PhD Statistics, 02/2022-Current
- Hyungjoon Kim, Colorado State University, PhD Statistics, Co-Advisor (Advisor: Dr. Andee Kaplan), 09/2023-Current
- Justin Van Ee, Colorado State University, PhD Statistics, Co-Advisor (Advisor: Dr. Mevin Hooten, UT Austin), 06/2021-08/2023
- Scott Liang, Rice University, PhD Statistics, Co-Advisor (Advisor: Dr. Marina Vannucci, Rice University), 03/2019-05/2023

PhD Committee Member

- Dominikus Atmaka, Colorado State University, PhD Food Science and Nutrition, Dissertation Committee Member, 2/2026-Current
- Eva Krastev, Colorado State University, PhD Statistics, Dissertation Committee Member, 12/2025-Current
- Kira Kapit, Colorado State University, PhD Cell and Molecular Biology, Dissertation Committee External Member, 9/2025-Current
- Eliud Rivas Hernandez, Colorado State University, PhD Cell and Molecular Biology, Dissertation Committee External Member, 9/2025-Current
- John Henry Gray, Colorado State University, PhD Statistics, Dissertation Committee Member, 7/2025-Current
- Chamodi Matara Arachchige, Colorado State University, PhD Statistics, Dissertation Committee Member, 3/2025-Current
- Amartya Maulik, Colorado State University, PhD Statistics, Dissertation Committee Member, 2/2025-Current

- Karissa Palmer, Colorado State University, PhD Statistics, Dissertation Committee Member, 12/2024-Current
- Wentao Guo, Colorado State University, PhD Statistics, Dissertation Committee Member, 11/2024-Current
- Hannah Butler, Colorado State University, PhD Statistics, Dissertation Committee Member, 8/2024-Current
- Lane Drew, Colorado State University, PhD Statistics, Dissertation Committee Member, 4/2022-08/2025
- Chukwudi Keke, Colorado State University, PhD Environmental and Radiological Health Sciences, Dissertation Committee External Member, 9/2023-05/2025
- Seongwon Im, Colorado State University, PhD Statistics, Dissertation Committee Member, 4/2023-06/2024
- Michael Creutzinger, Colorado State University, PhD Statistics, Dissertation Committee Member, 4/2022-5/2024
- Corinne Singleton, Colorado State University, PhD Education, Dissertation Committee External Member, 12/2021-10/2023
- Ian Taylor, Colorado State University, PhD Statistics, Dissertation Committee Member, 4/2023-10/2023
- Connor Gibbs, Colorado State University, PhD Statistics, Dissertation Committee Member, 1/2022-5/2023
- Yijun Wang, Colorado State University, PhD Mechanical Engineering, Dissertation Committee External Member, 08/2020-06/2022
- Yefei Zhang, UTHealth, PhD Biostatistics, Dissertation Committee Member, 01/2017-12/2021

PhD Defense Reviewer

- Matteo Pedone, University of Florence, PhD Statistics candidate, External Reviewer of Thesis (Advisor: Dr. Francesco Stingo), 1/2022. [**2023 Savage Award Honorable Mention in Applied Methodology**]
- Emilio Reuda, Colorado State University, PhD Mechanical Engineering student, Oral Defense Committee Member, 1/2022

Masters Committee Member

- Jake Pott, Colorado State University, Masters in Horticulture, Thesis Committee, Committee member, 03/2022-05/2023
- Connor Gibbs, Colorado State University, Masters in Statistics, Committee member, 08/2019-12/2022
- Simon Weller, Colorado State University, Masters in Statistics, Committee member, 08/2020-12/2022
- Sherry WeMott-Colton, Colorado State University, Masters in Environmental Health student, Thesis Committee, External Member, 01/2021-05/2022

Graduate Research

- Janet Fu, Rice University, PhD Statistics, 05/2019-05/2023

Undergraduate Research

- Jake Brisnehan, Colorado State University, Undergraduate in Fish, Wildlife & Conservation Biology and Statistics, Honors Thesis Committee Member, 01/2025-11/2025
- Kelsie Sparks, Colorado State University, Undergraduate in Biological Sciences, Honors Thesis Committee Member, 08/2024-05/2025
- Caitlyn Imfeld, Colorado State University, Undergraduate in Mathematics, Mentor, 05/2023-06/2023
- Xin Tan, Rice University, Undergraduate in Statistics, Co-mentor, 05/2020-11/2020
- James Warner, Rice University, Rice Undergraduate Data Science Summer Program, 2018
- Karan Adams, Rice University, Rice Undergraduate Data Science Summer Program, 2018
- Stoyan Komitov, Rice University, Rice Undergraduate Data Science Summer Program, 2018

Internships

- Alex Aguilar, Rice University, PhD Statistics, NASA Summer Intern, 2018
- Austin Vo, University of Central Florida, NASA Summer Intern, 2017

COMPUTER SKILLS

Languages & Software: R, C++, Rcpp, Shiny, L^AT_EX, Stan, STATA, SAS, WinBUGS

PROFESSIONAL AFFILIATION

- *Member*
American Statistical Association, 2015 - Current
- International Society for Bayesian Analysis, 2020 - Current

PROFESSIONAL SERVICE

- Panelist for NSF, Divisions of Mathematical Sciences and Computer & Network Systems, April 2023

Associate Editor

- Journal of Classification, 2021 - 2024

Reviewer

- Annals of Applied Statistics, Bayesian Analysis, Biometrical Journal, Biometrics, Biostatistics, Nature Communications, Journal of Applied Statistics, Journal of the American Statistical Association, Journal of Classification, Statistics in Medicine, Journal of Statistical Computation and Simulation, Journal of the Royal Statistical Society: Series A

Board Member

- UTHealth External Advisory Committee for Tenure-Track Faculty Jobs in Academia, 2024
- Data Safety Monitoring Board (DSMB) for NASA's Crew Health and Performance Exploration Analog (CHAPEA), 2022 - 2025
- Johnson Space Center IRB, 2017 - 2018

Professional Conferences

- JSM 2026, Contributed session chair, *Advances in Methodology for Complex Medical Trial Designs*
- 2025 ASA SBSS Student Paper Competition Judge
- EcoSta 2025, Invited session organizer, *Statistical Methods for Criminology*
- EcoSta 2025, Scientific Programme Committee Member
- 2024 ASA SBSS Student Paper Competition Judge
- WNAR 2024, Student Presentation Competition Judge
- WNAR 2024, Invited session organizer, *Advanced Bayesian Methods for Ecological Research*
- JSM 2024, Topic-Contributed session organizer, *Advanced Methods for Microbiome Data Analysis*
- 2022 ISBA World Meeting Lindley Prize Committee Member
- ENAR 2022, Invited session organizer, *Advanced Analytical Methods for mHealth Data*

Consultation

- Conference for Food Protection 2019: Program Standards Committee- Standard 8 Re-Evaluation of Staffing Level Model

DEPARTMENTAL SERVICE *Colorado State University*

- Computing Committee Chair, Fall 2025 - Spring 2026
- Departmental 7-Year Review: Bayesian and Computational Section, Fall 2023
- Departmental 7-Year Review: Graduate Service Courses Section, Fall 2023
- Graduate Admissions Committee, Fall 2022 - Spring 2024
- Statistics Seminar Series Committee Chair, Fall 2022
- Doctoral Candidacy Exam Committee, Fall 2021 - Spring 2023
- Master of Applied Statistics and Applied Graduate Statistics Committee, Fall 2022, Fall 2025 - Spring 2026
- Graduate Committee, Fall 2021 - Spring 2022
- Statistics Seminar Series Committee, Fall 2020 - Spring 2022, Fall 2024
- Communications Committee, Fall 2020 - Spring 2021

COLLEGE & UNIVERSITY SERVICE

Colorado State University

- DSRI - "DISCOVER: Data Science Integration for Collaborative and Versatile Research," Seed Grant Proposal Reviewer, Spring 2024

College of Natural Sciences

- CNS Data Science Steering Committee Member, Fall 2024 - Current
- Scholarship Committee, Fall 2023 - Spring 2024

CONTINUING EDUCATION

- NSF MPS Workshop for Young Investigators, Alexandria, VA, June 2023
- IMS New Researchers Conference, Fairfax, VA, July 2022
- CSU Grant Writes: Grants at the Sentence-Level Workshop, March 2023
- CSU Promotion and Tenure Best Practices Forum, Feb 2023
- CSU CNS - Pursuing New Frontiers: Grant Funding Workshop, Jan 2023
- CSU Creating Inclusive Excellence Program Certificate 2021-2022
 - Workshop 1: Diversity, Equity, and Inclusion Foundations, Oct 2021
 - Workshop 2: Uncovering Bias, Sept 2021
 - Workshop 3: Social Construction of Identity, Dec 2021
 - Workshop 4: Understanding Oppression, Dec 2021
 - Workshop 5: Microaggressions and Inclusive Language, Jan 2022
 - Workshop 6: Tools for Bystander Intervention, Aug 2022
- HACASA - Short Course “Randomized Clinical Trials-Replacing Traditional Analyses with Better Alternatives,” Houston, TX, May 2018
- Joint Statistical Meetings - Short Course “Network Meta-Analysis,” Baltimore, MD, Aug 2017
- Joint Statistical Meetings - Short Course “Evolution of Classification,” Baltimore, MD, Aug 2017
- NASA Human Research Program Investigator’s Workshop - “A New Dawn: Enabling Human Space Exploration,” Galveston, TX, Jan 2017
- Technology Collaboration Center - “Omics Workshop,” Houston, TX, Spring 2017
- Tableau Conference 2016 - Tableau Classroom Training- “Tableau Desktop II,” Austin, TX, Fall 2016
- ENAR - Short Course “An Introduction to Statistical Machine Learning,” Austin, TX, Spring 2016
- ENAR - Tutorial Session - “Data Visualizations in R with shiny and ggplot2,” Austin, TX, Spring 2016
- ENAR - Tutorial Session - “High Performance Computing with R,” Austin, TX, Spring 2016
- ASA Biopharmaceutical Section FDA - Industry Statistics Workshop - “Equivalence and Similarity Testing,” Washington, DC, Fall 2015
- ASA Biopharmaceutical Section FDA - Industry Statistics Workshop - “Designing Observational Comparative Studies Using Propensity Score Methodology in Regulatory Settings,” Washington, DC, Fall 2015
- Joint Statistical Meetings - “Adaptive Methods for Modern Clinical Trials,” Seattle, WA, Summer 2015
- UT Summer Statistics Institute - “Introduction to Mixed Models with Applications,” Austin, TX, Summer 2015
- UT Summer Statistics Institute - “Big Data Analytics,” Austin, TX, Summer 2015