Lucas da Cunha Godoy

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634-0460

2017-2019

Education

Universidade Federal do Rio Grande do Sul PORTO ALEGRE, BRAZIL 2011-2016

Bachelor degree in Statistics

Introduction to geostatistical modeling for counting data: Parameters estimation with different MCMC algorithms

Universidade Federal de Minas Gerais Belo Horizonte, Brazil

Master in Statistics

Testing Spatial Association Between Two Types Polygons

Advisor: Renato Assunção

University of Connecticut STORRS, CT

M.Sc. in Statistics 2019-2022 Ph.D. in Statistics (GPA: 3.640) 2019-2024

Hausdorff-Gaussian Process with Spatial and Spatiotemporal Applications

Advisor: Jun Yan

Awards

ENVR American Statistical Association–Student Paper Competition PORTLAND, OR

Honorable mention.

The EnviBayes workshop on complex environmental data, CSU FORT COLLINS, CO Travel Award. 2023

Graduate School - University of Connecticut STORRS, CT

Summer Doctoral Dissertation Fellowship. 2023

Department of Statistics – University of Connecticut STORRS, CT

Teaching Award. 2021-2022

The 2022 ISBA World Meeting Montreal, CA Jun '22 Travel Award.

The Graduate School – University of Connecticut STORRS, CT

Conference Participation Award. Jun '22

1st Shiny Contest - RStudio United States

Honorable Mention Apr '19

Voronoys-Understanding voters' profile in Brazilian elections.

1st Conference on Statistics and Data Science Brazil

Best Paper Award on Statistics and Data Science

Nov 18

Voronoy Data Linkage: Extracting Data from Polygons to Points.

Center for Politics and Economics in the Public Sector Studies (CEPESP)-FGV Brazil

1st CEPESP Data Challenge: Deciphering Brazil Elections

The challenge is to find solutions for visualization, search engines, graphic arts and any other tools that facilitate the understanding of the electoral process in Brazil. Always with free and open source

software.

Professional Experience

EEB-University of California Santa Cruz

Postdoctoral Researcher.

Analyses of range shifts in species distributions.

SANTA CRUZ, CA Jun '24-present Statistical Consulting Services-University of Connecticut

Graduate assistant.

Aug '23-May '24

Walk-in statistical consulting.

High Performance Computing-University of Connecticut

STORRS, CT

STORRS, CT

Graduate assistant.

Aug '22-May '23

System administration, development and maintenance of apptainer containers to assure reproducibility and compatibility between newer operating systems and old software. Support to the users of the cluster.

Department of Statistics-University of Connecticut

STORRS, CT

Statistics Cluster Admin.

Jun '21 – present

Management of the R packages and system requirements on the Cluster. Development and maintenance of singularity containers to assure analyses reproducibility.

Biostatistics Center-University of Connecticut Health Center

FARMINGTON, CT

Graduate Assistant

Sep '20-Dec '23

Statistical consulting for UConn Health Center researchers.

Agibank

Porto Alegre, Brazil

Data Scientist Dez 18–Jun 19

Development of predictive models for debt collection and dashboards for monitoring their performance.

Grupo Conectt

Porto Alegre, Brazil

Digital Intelligence Analyst

Sep '16–Mar '17

Development of monthly interactive reports based on web data. Predictive modeling of leads more likely to become clients.

Universidade Federal do Rio Grande do Sul

Porto Alegre, Brazil

Undergraduate Research Assistant (AMBES project-Petrobras)

Apr '15–Dec'15

Geostatistical modeling to predict and understand the impact of oil platforms' physical chemical characteristics of the ocean. Supervisor: Fernando Pulgati.

Undergraduate Research Assistant

May '11–Dec '14

Investigating social inequalities and their impact on public health in Brazil under. Supervisor: Professor Sergio Luiz Bassanesi.

Instituto Brasileiro de Geografia e Estatística

Supervisor Agent-Census

Mar '10-Nov '10

Organization, supervision, and monitoring of data collection during the 2010 Census in Brazil.

Teaching Experience

University of Connecticut

Storrs, CT

Principal Instructor

Spring 2021–Spring 2022

STAT 3445-Introduction to Mathematical Statistics II.

Teaching Assistant

Fall 2019-Fall 2020

STAT 3445-Introduction to Mathematical Statistics II.

Grader

Fall 2019

STAT 2215Q-Introduction to Statistics II.

Teaching Assistant

Spring 2020

STAT 1000Q-Introduction to Statistics I.

Uniritter

Porto Alegre, Brazil

Lecturer

Spring 2019

Data analysis using R.

Peer-Reviewed Articles-Methodology

Godoy, **L. d. C.**, Assunção, R. M., & Butler, K. A. (2022). Testing the spatial association of different types of polygons. *Spatial Statistics*, *51*, 100695. https://doi.org/10.1016/j.spasta.2022.100695

Prates, M. O., Azevedo, D. R. M., **Godoy**, **L. d. C.**, & Bandyopadhyay, D. (2021). Can gaussian markov random fields handle spatial confounding? *Journal of the Indian Statistical Association*, 59(2), 197–220.

Peer-Reviewed Articles-Applications

- Abu-Arqub, S., Hariharan, A., Banankhah, S., **Godoy**, **L. d. C.**, Liu, P., Kuo, C., & Uribe, F. (0a). Accuracy of full arch scans using the itero element 2® intra-oral scanner: A clinical study [PMID: 39135489]. *Journal of Orthodontics*, *0*(0), 0–0. https://doi.org/10.1177/14653125241268755
- Frank, S., Ibrahim, B., Feng, R., Bidra, A., Lafreniere, D., Kuo, C., **Godoy**, **L. d. C.**, & Falcone, T. E. (n.d.). Tolerability of nasal and oral povidone-iodine antisepsis for in-office procedures. *Clinical Otolaryngology*, 48(4), 696–699. https://doi.org/10.1111/coa.14045
- Abu-Arqub, S., Al-Moghrabi, D., Kuo, C., **Godoy**, **L. d. C.**, & Uribe, F. (2024). Perceptions and utilization of tele-orthodontics: A survey of the members of the american association of orthodontists. *Progress in Orthodontics*, 25(1), 16. https://doi.org/10.1186/s40510-024-00516-4
- Abu-Arqub, S., Greene, R., Greene, S., Laing, K., Kuo, C., **Godoy**, **L. d. C.**, & Uribe, F. (2024). Retrospective evaluation of the success rate and factors associated with the stability of alveolar ridge orthodontic miniscrews: Pilot study. *Journal of the World Federation of Orthodontists*, 13(4), 181–188. https://doi.org/https://doi.org/10.1016/j.ejwf.2024.02.001
- Andreyeva, T., Moore, T. E., **Godoy**, **L. d. C.**, & Kenney, E. L. (2024). Federal nutrition assistance for young children: Underutilized and unequally accessed. *American Journal of Preventive Medicine*, 66(1), 18–26. https://doi.org/https://doi.org/10.1016/j.amepre.2023.09.008
- Fryc, G. A., **Godoy**, **L. d. C.**, Kuo, C., & Lurie, A. G. (2024). Prevalence of likely retro-odontoid pseudotumor in patients receiving dental cbct examinations. *Oral Surgery*, *Oral Medicine*, *Oral Pathology and Oral Radiology*, 137(3), 301–309. https://doi.org/10.1016/j.oooo.2023.11.005
- Irsheid, R., Godoy, L. D. C., Kuo, C., Metz, J., Dolce, C., & Abu-Arqub, S. (2024). Comparative assessment of the clinical outcomes of clear aligners compared to fixed appliance in class ii malocclusion. *Clinical Oral Investigations*, 28(8), 1–10. https://doi.org/10.1186/s12903-018-0695-z
- Abu-Arqub, S., Ahmida, A., **Godoy**, **L. d. C.**, Kuo, C., Upadhyay, M., & Yadav, S. (2023). Insight into clear aligner therapy protocols and preferences among members of the american association of orthodontists in the united states and canada. *The Angle Orthodontist*, 93(4), 417–428. https://doi.org/10.2319/101022-694.1
- Abu-Arqub, S., Bashir, R., Obeng, K., **Godoy**, **L. d. C.**, Kuo, C., Upadhyay, M., & Yadav, S. (2023). Survival and failure rate of lower lingual bonded retainers: A retrospective cohort evaluation. *Orthodontics & Craniofacial Research*, 26(2), 256–264. https://doi.org/10.1111/ocr.12608
- Abu-Arqub, S., Greene, R., Greene, S., Laing, K., Kuo, C., **Godoy**, **L. d. C.**, & Uribe, F. (2023). Ridge mini-implants, a versatile biomechanical anchorage device whose success is significantly enhanced by splinting: A clinical report. *Progress in Orthodontics*, 24(1), 27. https://doi.org/10.1186/s40510-023-00480-5
- de Jesus, M., Maheshwary, A., Kumar, M., **Godoy**, **L. d. C.**, Kuo, C., & Grover, P. (2023). Association of electrocardiographic and echocardiographic variables with neurological outcomes after ischemic stroke. *American Heart Journal Plus: Cardiology Research and Practice*, 34, 100313. https://doi.org/10.1016/j.ahjo. 2023.100313
- Duong, C., Zhu, Q., Aseltine Jr, R. H., Kuo, C., **Godoy**, **L. d. C.**, & Kaufman, B. (2023). A survey on cone-beam computed tomography usage among endodontists in the united states. *Journal of Endodontics*, 49(11), 1559–1564. https://doi.org/10.1016/j.joen.2023.08.020
- Harandi, M. T., Abu-Arqub, S., Warren, E., Kuo, C., Godoy, L. d. C., Mehta, S., Feldman, J., Upadhyay, M., & Yadav, S. (2023). Assessment of clear aligner accuracy of 2 clear aligners systems. *American Journal of Orthodontics and Dentofacial Orthopedics*, 164(6), 793–804. https://doi.org/https://doi.org/10.1016/j.ajodo. 2023.05.028
- Kuo, C., Liu, R., **Godoy**, **L. d. C.**, Pilling, L. C., Fortinsky, R. H., & Brugge, D. (2023). Association between residential exposure to air pollution and incident coronary heart disease is not mediated by leukocyte telomere length: A uk biobank study. *Toxics*, *11*(6). https://doi.org/10.3390/toxics11060489
- Leonard, J. F., Taxel, P., Kuo, C., **Godoy**, **L. d. C.**, & Freilich, M. (2023). Dental implant and bone augmentation treatment in bone-compromised patients: Oral health-related quality of life outcomes. *The Journal of Prosthetic Dentistry*. https://doi.org/10.1016/j.prosdent.2023.01.011
- Turshudzhyan, A., **Godoy**, **L. d. C.**, Kuo, C., & Wu, G. Y. (2023). Alpha feto-protein expression trends for screening early hepatocellular carcinoma. *Gene Expression*, 22(2), 109–114. https://doi.org/10.14218/GE. 2023.00001
- Abu-Arqub, S., Banankhah, S., Sharma, R., **Godoy**, **L. d. C.**, Kuo, C., Ahmed, M., Alfardan, M., & Uribe, F. (2022). Association between initial complexity, frequency of refinements, treatment duration, and outcome in Invisalign orthodontic treatment. *American Journal of Orthodontics and Dentofacial Orthopedics*. https://doi.org/10.1016/j.ajodo.2022.06.017
- Hariharan, A., Abu-Arqub, S., Gandhi, V., **Godoy**, **L. d. C.**, Kuo, C., & Uribe, F. (2022). Evaluation of interproximal reduction in individual teeth, and full arch assessment in clear aligner therapy: Digital planning versus 3d model analysis after reduction. *Progress in Orthodontics*, 23(1), 1–10. https://doi.org/10.1186/s40510-022-00403-w

- Kumar, M., Patil, S., Godoy, L. d. C., Kuo, C., Swede, H., Kuchel, G. A., & Chen, K. (2022). Demand ischemia as a predictor of mortality in older patients with delirium. Frontiers in Cardiovascular Medicine, 9. https://doi.org/10.3389/fcvm.2022.917252
- Arqub-Abu, S., Voldman, R., Ahmida, A., Kuo, C., Godoy, L. d. C., Nasrawi, Y., Al-Khateeb, S. N., & Uribe, F. (2021). Patients' perceptions of orthodontic treatment experiences during COVID-19: A cross-sectional study. *Progress in Orthodontics*, 22(1), 1–12. https://doi.org/10.1186/s40510-021-00363-7
- Huynh, C., Godoy, L. d. C., Kuo, C., Smeds, M., & Amankwah, K. S. (2021). Examining the development of operative autonomy in vascular surgery training and when trainees and program directors agree and disagree. Annals of Vascular Surgery, 74, 1-10. https://doi.org/10.1016/j.avsg.2021.01.121
- Lin, G., Murase, J. E., Murrell, D. F., Godoy, L. d. C., & Grant-Kels, J. M. (2021). The impact of gender in mentor-mentee success: Results from the women's dermatologic society mentorship survey. International Journal of Women's Dermatology, 7(4), 398–402. https://doi.org/10.1016/j.ijwd.2021.04.010

Pre-Print Articles and Software

- Godoy, L. d. C. (2024a). sapo: Spatial association of different types of polygon [R package version 0.8.0]. https: //CRAN.R-project.org/package=sapo
- **Godoy**, L. d. C. (2024b). *smile: Spatial misalignment: Interpolation, linkage, and estimation* [R package version 1.0.5]. https://doi.org/10.32614/CRAN.package.smile
- Godoy, L. d. C., Prates, M. O., & Yan, J. (2024a). Statistical inferences and predictions for areal data and spatial data fusion with hausdorff–gaussian processes. https://doi.org/10.48550/arXiv.2208.07900

Articles under review

- Godoy, L. d. C., Prates, M. O., & Yan, J. (2024b). Voronoi linkage between mismatching voting stations and census tracts in analyzing the 2018 brazilian presidential election data. New England Journal of Statistics in
- Hernández, G. G., Seemann, J. R., Godoy, L. d. C., Slot, M., & García-Robledo, C. (2024). Heat tolerance of tropical herbaceous plants increases with elevation. *Annals of Botany*.

Contributed Talks and Posters

Joint Statistical Meeting 2024

PORTLAND, OR

From Point to Polygon: A Unified Framework for Modeling Spatial Dependence Talk.

Aug '24

The 37th New England Statistics Symposium

STORRS, CT

Beyond Traditional Disease Mapping: Hausdorff-Gaussian Process for Spatiotemporal Analysis of **Tuberculosis Incidence** May '24 Talk.

The EnviBayes workshop on complex environmental data, CSU

FORT COLLINS, CO

Hausdorff-Gaussian process: Unifying spatial data analysis Poster.

Sep '23

The 2022 ISBA World Meeting

Montreal, CA

An unified framework for point-level, areal, and mixed spatial data: The Hausdorff-Gaussian Process Jun '22

Talk.

The 35th New England Statistics Symposium

STORRS, CT

Model-Based Voronoi linkage between point-referenced data and areal data in spatial analysis with application to the Brazilian election 2018 May '22

The 34th New England Statistics Symposium

STORRS, CT

Spatially misaligned data: An application to the 2018 Brazilian presidential election

Oct '21

2nd UConn Sports Analytics Symposium (UCSAS)

STORRS, CT Oct '20

Automatic team selection in a fantasy football (soccer) Game. Poster.

1st UConn Sports Analytics Symposium (UCSAS)

STORRS, CT Oct '19

Bayesian hierarchical models applied to fantasy games.

Poster.

1ST CONFERENCE ON STATISTICS AND DATA SCIENCE

Salvador, Brazil

Voronoi Data Linkage: Extracting data from polygons to points.

Nov '18

Contributed Talk.

63TH MEETING FROM THE BRAZILIAN CHAPTER OF THE INTERNATIONAL BIOMETRIC SOCIETY (RBRAS) CURITIBA, Brazil

Voronoi Cells: Visualizing intramunicipality votes distribution Contributed Talk.

May '18

XIV Brazilian meeting on Bayesian Statistics (EBEB)

Rio de Janeiro, Brazil

A Bayesian mixture model to fit players performance in fantasy games Poster

Mar '18

Invited Talks

Department of Statistcs, University of California Santa Cruz

Santa Cruz, CA

Statistical Inferences and Predictions for Areal Data and Spatial Data Fusion with Hausdorff-Gaussian **Processes** Oct '24

Stockholm Resilience Centre, University of Stockholm

STOCKHOLM, SE

Process-based species distribution models for improving predictive performance of climate-driven range shifts Sep '24

Joint talk with Dr. Mark Morales.

Web Scraping for Sports Data with R

UConn Sports Analytics Symposium (UCSAS) 2021

STORRS, CT

Oct '21

1ST DATATHON - UFRGS

Porto Alegre, Brazil

Nov '18

GRADUATE STUDENTS' SEMINARS - UFMG

Web Scraping, Web Services & APIs.

Belo Horizonte, Brazil

Analyzing Brazilian public data

Aug '18