

# Lucas da Cunha Godoy

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## Education

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| Universidade Federal do Rio Grande do Sul  | PORTO ALEGRE, BRAZIL   |
| <b>Bachelor degree in Statistics</b>   | 2011–2016              |
| Introduction to geostatistical modeling for counting data:<br>Parameters estimation with different MCMC algorithms |                        |
| Universidade Federal de Minas Gerais   | BELO HORIZONTE, BRAZIL |
| <b>Master in Statistics</b>  | 2017–2019              |
| Testing Spatial Association Between Two Types Polygons<br>ADVISOR: Renato Assunção                                 |                        |
| University of Connecticut  | STORRS, CT             |
| <b>M.Sc. in Statistics</b>   | 2019–2022              |
| <b>Ph.D. in Statistics (GPA: 3.640)</b>  | 2019–2024              |
| Hausdorff–Gaussian Process with Spatial and Spatiotemporal Applications<br>ADVISOR: Jun Yan                        |                        |

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## Awards

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|---|------------------|
| ENVR American Statistical Association–Student Paper Competition   | PORTLAND, OR     |
| <b>Honorable mention.</b>   | 2024             |
| The EnviBayes workshop on complex environmental data, CSU   | FORT COLLINS, CO |
| <b>Travel Award.</b>  | 2023             |
| Graduate School – University of Connecticut   | STORRS, CT       |
| <b>Summer Doctoral Dissertation Fellowship.</b>   | 2023             |
| Department of Statistics – University of Connecticut  | STORRS, CT       |
| <b>Teaching Award.</b>  | 2021–2022        |
| The 2022 ISBA World Meeting   | MONTREAL, CA     |
| <b>Travel Award.</b>  | Jun '22          |
| The Graduate School – University of Connecticut   | STORRS, CT       |
| <b>Conference Participation Award.</b>  | Jun '22          |
| 1 <sup>st</sup> Shiny Contest - RStudio   | UNITED STATES    |
| <b>Honorable Mention</b>  | Apr '19          |
| Voronoy-Understanding voters' profile in Brazilian elections.   |                  |
| 1 <sup>st</sup> Conference on Statistics and Data Science   | BRAZIL           |
| <b>Best Paper Award on Statistics and Data Science</b>  | Nov '18          |
| Voronoy Data Linkage: Extracting Data from Polygons to Points.  |                  |
| Center for Politics and Economics in the Public Sector Studies (CEPESP)–FGV   | BRAZIL           |
| <b>1<sup>st</sup> CEPESP Data Challenge: Deciphering Brazil Elections</b>   | Dec '17          |
| 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. |                  |

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## 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.**

Walk-in statistical consulting.

STORRS, CT

*Aug '23–May '24*

High Performance Computing-University of Connecticut

**Graduate assistant.**

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.

STORRS, CT

*Aug '22–May '23*

Department of Statistics-University of Connecticut

**Statistics Cluster Admin.**

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

STORRS, CT

*Jun '21 – present*

Biostatistics Center–University of Connecticut Health Center

**Graduate Assistant**

Statistical consulting for UConn Health Center researchers.

FARMINGTON, CT

*Sep '20–Dec '23*

Agibank

**Data Scientist**

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

PORTO ALEGRE, BRAZIL

*Dez '18–Jun '19*

Grupo Conectt

**Digital Intelligence Analyst**

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

PORTO ALEGRE, BRAZIL

*Sep '16–Mar '17*

Universidade Federal do Rio Grande do Sul

**Undergraduate Research Assistant (AMBES project-Petrobras)**

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

PORTO ALEGRE, BRAZIL

*Apr '15–Dec '15*

**Undergraduate Research Assistant**

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

*May '11–Dec '14*

Instituto Brasileiro de Geografia e Estatística

**Supervisor Agent-Census**

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

*Mar '10–Nov '10*

## Teaching Experience

University of Connecticut

**Principal Instructor**

STAT 3445–Introduction to Mathematical Statistics II.

STORRS, CT

*Spring 2021–Spring 2022*

**Teaching Assistant**

STAT 3445–Introduction to Mathematical Statistics II.

*Fall 2019–Fall 2020*

**Grader**

STAT 2215Q–Introduction to Statistics II.

*Fall 2019*

**Teaching Assistant**

STAT 1000Q–Introduction to Statistics I.

*Spring 2020*

Uniritter

**Lecturer**

Data analysis using R.

PORTO ALEGRE, BRAZIL

*Spring 2019*

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## Peer-Reviewed Articles–Methodology

- Michelin, L., **Godoy, L. d. C.**, Ramos, H. S., & Prates, M. O. (2025). Fast mixture spatial regression: A mixture in the geographical and feature space applied to predict porosity in the Post-salt. *Spatial Statistics*, 65, 100873. <https://doi.org/10.1016/j.spasta.2024.100873>
- 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-Arquib, S., Hariharan, A., Banankhah, S., **Godoy, L. d. C.**, Liu, P., Kuo, C., & Uribe, F. (0). 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 antiseptics for in-office procedures. *Clinical Otolaryngology*, 48(4), 696–699. <https://doi.org/10.1111/coa.14045>
- Al-Naggar, I. M., Antony, M., Baker, D., Wang, L., **Godoy, L. d. C.**, Kuo, C., Fraser, M. O., Smith, P. P., Xu, M., & Kuchel, G. A. (2025). Polyploid superficial uroepithelial bladder barrier cells express features of cellular senescence across the lifespan and are insensitive to senolytics [e14399 ACE-23-0923.R2]. *Aging Cell*, 24(2), e14399. <https://doi.org/10.1111/accel.14399>
- Moriarty, K. L., Manfredi, K., Carrel, P., Kryzanski, E., Schwartz, D. A., **Godoy, L. d. C.**, Kuo, C., & Shields, A. (2025). Findings of reduced head circumference with COVID-19 infection in the third trimester: A retrospective cohort study. *Biomedicine*, 13(4). <https://doi.org/10.3390/biomedicine13040832>
- Sieger, M. L., **Godoy, L. d. C.**, Moore, T. E., Nichols, C., Goldsborough, E. J., Chen, S., Terplan, M., Griffin, B. A., & Patrick, S. W. (2025). Connecticut's novel prenatal substance exposure policy is associated with declining CPS reports and foster placements [PMID: 40623260]. *Health Affairs*, 44(7), 821–829. <https://doi.org/10.1377/hlthaff.2024.01160>
- Abu-Arquib, 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-Arquib, 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/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/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-Arquib, 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>
- Wilson, C., Taxel, P., Shafer, D., Tadinada, A., **Godoy, L. d. C.**, Kuo, C., & Freilich, M. (2024). Cone beam computed tomography outcomes in patients diagnosed with compromised bone health undergoing dental implant therapy and bone augmentation. *The Journal of Prosthetic Dentistry*. <https://doi.org/10.1016/j.prosdent.2024.10.030>
- Abu-Arquib, 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-Arquib, 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-Arquib, 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-Arquib, 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-Arquib, 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-Arquib, 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>
- Arquib-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.**, Prates, M., & Quintana, F. (2025). A note on defining positive definite functions. <https://arxiv.org/abs/2502.15146>
- Hernández, G. G., Seemann, J. R., **Godoy, L. d. C.**, Slot, M., & García-Robledo, C. (2025). Heat tolerance of tropical herbaceous plants increases with elevation. <https://doi.org/10.1101/2025.03.12.642681>
- 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>

## Articles under review

- Fredston, A., Ovando, D., Godoy, L. d. C., Kong, J., Muffley, B., Thorson, J. T., & Pinsky, M. (2025). Dynamic range models improve the near-term forecast for a marine species on the move. *Ecology Letters*. <https://doi.org/10.32942/X24D00>
- Godoy, L. d. C., Fredston, A., Morales, M., Bandara, R. M. W. J., & Pinsky, M. L. (2025). drmr: A Bayesian approach to Dynamic Range Models in R. *DOUBLE-BLIND REVIEW*.
- Godoy, L. d. C., Matthews, G. J., & Yan, J. (2025). A review of competitive structure analytics in sports. *International Statistical Review*.
- Pandya, S. S., Godoy, L. d. C., Alexander, C. S., Schneider, D., & Harknett, K. (2025). Using worker surveys to detect labor standards non-compliance. *Statistics and Public Policy*.
- 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. *Journal of Agricultural Biological and Environmental Statistics*. <https://doi.org/10.48550/arXiv.2208.07900>
- 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 Data Science*.

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## Refereeing

- Biostatistics
- International Statistical Review
- Journal of the Royal Statistical Society: Series A
- Journal of Data Science

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## Invited Talks

Department of Epidemiology and Biostatistics, University of California San Francisco    SAN FRANCISCO, CA

**Statistical Inferences and Predictions for Areal Data and Spatial Data Fusion with Hausdorff-Gaussian Processes**    Mar '25

Department of Statistics, Universidade Federal do Rio Grande do Sul    PORTO ALEGRE, BR

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

Department of Statistics, 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.

UConn Sports Analytics Symposium (UCSAS) 2021

**Web Scraping for Sports Data with R**    STORRS, CT  
Oct '21



1<sup>ST</sup> DATATHON - UFRGS  
Web Scraping, Web Services & APIs.

PORTO ALEGRE, BR  
Nov '18

GRADUATE STUDENTS' SEMINARS - UFMG  
Analyzing Brazilian public data

BELO HORIZONTE, BR  
Aug '18

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## Contributed Talks and Posters

Joint Statistical Meeting 2024  
From Point to Polygon: A Unified Framework for Modeling Spatial Dependence  
Talk. PORTLAND, OR  
Aug '24

The 37<sup>th</sup> New England Statistics Symposium  
Beyond Traditional Disease Mapping: Hausdorff-Gaussian Process for Spatiotemporal Analysis of Tuberculosis Incidence  
Talk. STORRS, CT  
May '24

The EnviBayes workshop on complex environmental data, CSU  
Hausdorff-Gaussian process: Unifying spatial data analysis  
Poster. FORT COLLINS, CO  
Sep '23

The 2022 ISBA World Meeting  
An unified framework for point-level, areal, and mixed spatial data: The Hausdorff-Gaussian Process  
Talk. MONTREAL, CA  
Jun '22

The 35<sup>th</sup> New England Statistics Symposium  
Model-Based Voronoi linkage between point-referenced data and areal data in spatial analysis with application to the Brazilian election 2018  
Talk. STORRS, CT  
May '22

The 34<sup>th</sup> New England Statistics Symposium  
Spatially misaligned data: An application to the 2018 Brazilian presidential election  
Poster. STORRS, CT  
Oct '21

2<sup>nd</sup> UConn Sports Analytics Symposium (UCSAS)  
Automatic team selection in a fantasy football (soccer) Game.  
Poster. STORRS, CT  
Oct '20

1<sup>st</sup> UConn Sports Analytics Symposium (UCSAS)  
Bayesian hierarchical models applied to fantasy games.  
Poster. STORRS, CT  
Oct '19

1<sup>ST</sup> CONFERENCE ON STATISTICS AND DATA SCIENCE  
Voronoi Data Linkage: Extracting data from polygons to points.  
Contributed Talk. SALVADOR, BRAZIL  
Nov '18

63<sup>TH</sup> 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)  
A Bayesian mixture model to fit players performance in fantasy games  
Poster RIO DE JANEIRO, BRAZIL  
Mar '18