

# Lucas da Cunha Godoy

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## Education

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

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## Professional Experience

<b>EEB-University of California Santa Cruz</b> <b>Postdoctoral Researcher.</b> Analyses of range shifts in species distributions.	SANTA CRUZ, CA Jun '24–present
<b>Statistical Consulting Services-University of Connecticut</b> <b>Graduate assistant.</b> Walk-in statistical consulting.	STORRS, CT Aug '23–May '24
<b>High Performance Computing-University of Connecticut</b> <b>Graduate assistant.</b> System administration, development and maintenance of aptainer 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
<b>Department of Statistics-University of Connecticut</b> <b>Statistics Cluster Admin.</b> 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
<b>Biostatistics Center–University of Connecticut Health Center</b> <b>Graduate Assistant</b> Statistical consulting for UConn Health Center researchers.	FARMINGTON, CT Sep '20–Dec '23
<b>Agibank</b> <b>Data Scientist</b> Development of predictive models for debt collection and dashboards for monitoring their performance.	PORTO ALEGRE, BRAZIL Dez '18–Jun '19
<b>Grupo Conectt</b> <b>Digital Intelligence Analyst</b> 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
<b>Universidade Federal do Rio Grande do Sul</b> <b>Undergraduate Research Assistant (AMBES project-Petrobras)</b> 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**

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-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>

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>

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>
- Baruwa Etti, A., Kuo, C.-I., **Godoy, L. d. C.**, & Andemariam, B. (2022). Real-world outcomes in adult sickle cell disease patients treated with crizanlizumab, voxelotor or both. *Blood*, 140(Supplement 1), 8292–8293. <https://doi.org/10.1182/blood-2022-170808>
- 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>
- Boutrous, M. L., Maseto, N., Kuo, C., **Godoy, L. d. C.**, & Amankwah, K. (2021). The use of multiple carotid stents is associated with increased incidence of developing in-stent stenosis on long-term follow-up. *Journal of Vascular Surgery*, 74(3), e240–e241. <https://doi.org/10.1016/j.jvs.2021.06.359>
- 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

- da **Cunha Godoy, L.** (2024). *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.** (2024). *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 Data Science*.
- 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** Aug '24  
 Talk.
- The 37<sup>th</sup> 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** Sep '23  
 Poster.
- 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 35<sup>th</sup> 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  
 Talk.
- The 34<sup>th</sup> New England Statistics Symposium STORRS, CT  
**Spatially misaligned data: An application to the 2018 Brazilian presidential election** Oct '21  
 Poster.
- 2<sup>nd</sup> UConn Sports Analytics Symposium (UCSAS) STORRS, CT  
**Automatic team selection in a fantasy football (soccer) Game.** Oct '20  
 Poster.
- 1<sup>st</sup> UConn Sports Analytics Symposium (UCSAS) STORRS, CT  
**Bayesian hierarchical models applied to fantasy games.** Oct '19  
 Poster.
- 1<sup>ST</sup> CONFERENCE ON STATISTICS AND DATA SCIENCE SALVADOR, BRAZIL  
**Voronoi Data Linkage: Extracting data from polygons to points.** Nov '18  
 Contributed Talk.
- 63<sup>TH</sup> MEETING FROM THE BRAZILIAN CHAPTER OF THE INTERNATIONAL BIOMETRIC SOCIETY (RBRAS) CURITIBA, BRAZIL  
**Voronoi Cells: Visualizing intramunicipality votes distribution** May '18  
 Contributed Talk.
- XIV BRAZILIAN MEETING ON BAYESIAN STATISTICS (EBEB) RIO DE JANEIRO, BRAZIL  
**A Bayesian mixture model to fit players performance in fantasy games** Mar '18  
 Poster

## Invited Talks

- UConn Sports Analytics Symposium (UCSAS) 2021 STORRS, CT  
**Web Scraping for Sports Data with R** Oct '21
- 1<sup>ST</sup> DATATHON - UFRGS PORTO ALEGRE, BRAZIL  
**Web Scraping, Web Services e API** Nov '18
- GRADUATE STUDENTS' SEMINARS - UFMG BELO HORIZONTE, BRAZIL  
**Analyzing Brazilian public data** Aug '18

## Awards

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