

# DANIEL VARTANIAN

I'm a researcher at the University of São Paulo working on **complex systems** modeling and data science. My research focuses on **agent-based models**, geospatial analysis, and computational approaches to social and public health challenges.

I develop open-source research software, primarily in **R**, **Python**, and **NetLogo**. My tools are used by researchers studying chronobiology, food security, and climate impacts on health systems.

Outside work, I'm involved in building scientific communities and contributing to open-source projects through **rOpenSci** and the **NetLogo** ecosystem.



Access this CV online at:  
[danielvartan.github.io/cv-en](https://danielvartan.github.io/cv-en)

## RESEARCH EXPERIENCE

Present  
|  
2025

### Research Fellow

Center for Metropolitan Studies (FFLCH-USP)

📍 São Paulo, SP, Brazil

- Lead geospatial modeling and large-scale data mining on the FAPESP-funded **AcessoSAN** project, investigating healthy food access in favelas and low-income urban communities across Brazil.
- Built reproducible **R** and **Quarto** pipelines to process and analyze millions of records from **SISVAN**, **Brazilian Revenue Service**, **DATASUS**, **IBGE Census**, and climate datasets like **WorldClim 2.1** and **Mapbiomas**.
- Collaborate with interdisciplinary teams of nutritionists, sociologists, health professionals, and engineers across multiple **USP** departments.

2025  
|  
2024

### Research Fellow

Sustentarea (FSP-USP)

📍 São Paulo, SP, Brazil

- Led agent-based modeling on the **CNPq**-funded **Global Syndemic** project investigating climate change effects on child nutrition and health in Brazil.
- Developed **NetLogo** models simulating food production systems and nutritional outcomes in children under 5, using climate projections from **Global Climate Models** and **IBGE** data.
- Created the **logolink** R package to provide analytical infrastructure for **NetLogo** simulations.
- Produced research papers (submitted), reproducible analysis pipelines, and technical reports for cross-institutional teams of health researchers and climate scientists from **USP** and the **RESICLIMA Network**.

2025  
|  
2022

### Graduate Research Fellow

University of São Paulo (USP)

📍 São Paulo, SP, Brazil

- Developed nested linear models investigating the relationship between human chronotype and latitude using Brazil's largest chronotype dataset (n=115,166).
- Created the **mctq** R package (published on **CRAN**, peer-reviewed by **rOpenSci**) for processing chronotype questionnaires.
- Built reproducible analysis pipelines in **R** and **Quarto** for statistical modeling and data processing.
- Completed **master's thesis** on chronotype and latitude relationships.

## CONTACT

📍 São Paulo, SP, Brazil  
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🔗 [danielvartan](#)  
🌐 [danielvartan](#)  
🆔 0000-0001-7782-759X

## REFERENCES

Prof. Dr. Aline Carvalho

Department of Nutrition  
School of Public Health  
University of São Paulo

Prof. Dr. Leandro Garcia

Senior Lecturer in Complexity  
Science in Public Health  
Centre for Public Health  
Queen's University Belfast

Prof. Dr. Camilo R. Neto

Graduate Program in Complex  
Systems Modeling  
School of Arts, Sciences and  
Humanities  
University of São Paulo

*Developed with **R**  
pagedown and datadrivencv  
packages.*

*Source code available at:  
[github.com/danielvartan/cv-en](https://github.com/danielvartan/cv-en)*

*Last updated on February 17, 2026.*

2022  
|  
2019

### Assistant Research Fellow

University of São Paulo (USP)

📍 São Paulo, SP, Brazil

- Developed **actigraphy** monitoring protocols and analytical models for circadian rhythm assessment using non-parametric methods, cosinor analysis, periodograms, and actogram visualizations.
- Created the **actverse** R package providing tools for **actigraphy** data analysis.
- Co-authored the first **Brazilian Actigraphy Consensus** and delivered training workshops to 60+ researchers, including a launch workshop at the 18th Brazilian Sleep Congress.
- Contributed to USP's Sleep Genetics project investigating associations between **chronotype** and **clock genes** using **actigraphy** and genetic data from saliva samples across multi-centric cohorts in São Paulo and Baependi, Minas Gerais.

2019  
|  
2016

### Undergraduate Research Fellow

University of São Paulo (USP)

📍 São Paulo, SP, Brazil

- Provided statistical modeling and data analysis support for **circadian rhythm** and sleep research projects.
- Served as head of marketing and communications for USP's Interdisciplinary Sleep Research Group (**GIPSO**), securing media coverage in major Brazilian outlets like *Folha de São Paulo* and *TV Globo's Fantástico*.
- Co-developed sleep science courses through **EACH-USP's** summer program and the **Coursera** platform.



## EDUCATION

2025  
|  
2022

### MSc, Complex Systems Modeling

University of São Paulo (USP)

📍 São Paulo, SP, Brazil

- Focus on agent-based and computational modeling of complex social and environmental systems.
- Founded USP's **Agent-Based Modeling Study Group**.
- Thesis: [danielvartan.github.io/mastersthesis](https://danielvartan.github.io/mastersthesis)

2022  
|  
2016

### BSc, Marketing

University of São Paulo (USP)

📍 São Paulo, SP, Brazil

- Final grade: 7.7/10 (23rd/66)
- Strong quantitative foundation in calculus, statistics, and finance.
- Co-founded **EACH-USP's Wellness and Health Commission**.



## TEACHING EXPERIENCE

2026  
|  
2025

### An Introduction to the R Programming Language

University of São Paulo (USP)

📍 São Paulo, SP, Brazil

- Developed and delivered introductory R programming course for researchers at the School of Public Health (**FSP**) (2025) and School of Philosophy, Literature and Human Sciences (**FFLCH**) (2026) at the University of São Paulo (**USP**).
- Trained approximately 30 researchers across both institutions.

## PROGRAMMING LANGUAGES

🔗 **danielvartan**

Expert

📊 R

📊 NetLogo

Fluent

🐍 Python

📊 SQL

Intermediate

📄 Bash

📄 C C++ C#

📄 GAML (**GAMA**)

📄 JavaScript

📄 Lua

Basic Proficiency

📄 GDScript (**Godot**)

📄 Julia

📄 Rust

Markup/Other Languages

📄 CSS

🔗 Git

📄 HTML

📄 Markdown

📄 SASS

📄 TeX LaTeX

|      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2024 | <b>Technical High School Program in Administration</b><br>São Paulo State Government <div>              São Paulo, SP, Brazil           </div> <ul style="list-style-type: none"> <li>• Taught mathematics to approximately 100 students across two public high schools in São Paulo State's technical education program.</li> </ul>                                             |
| 2023 | <b>ACH0042 - Problem Based Learning II</b><br>University of São Paulo (USP) <div>              São Paulo, SP, Brazil           </div> <ul style="list-style-type: none"> <li>• Taught science and computational methods to 60 information systems students at EACH-USP.</li> </ul>                                                                                               |
| 2021 | <b>Introductory Course on Actigraphy</b><br>18th Brazilian Sleep Congress <div>              São Paulo, SP, Brazil           </div> <ul style="list-style-type: none"> <li>• Co-delivered actigraphy training workshop accompanying the launch of the Brazilian Actigraphy Consensus.</li> <li>• Trained approximately 40 sleep researchers and health professionals.</li> </ul> |

## HONORS, AWARDS & FELLOWSHIPS

|                   |                                                                                                                                                     |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| 2026<br> <br>2025 | <b>Technical Training (Level IV) Research Fellowship</b><br>São Paulo Research Foundation (FAPESP)                                                  |
| 2025<br> <br>2024 | <b>Technological and Industrial Development (DTI-B) Research Fellowship</b><br>National Council for Scientific and Technological Development (CNPq) |
| 2024<br> <br>2022 | <b>Master's Research Fellowship</b><br>Coordination for the Improvement of Higher Education Personnel (CAPES)                                       |
| 2023              | <b>2nd Best Work</b><br>30th International Symposium on Undergraduate Research of the University of São Paulo (SIICUSP)                             |
| 2021<br> <br>2016 | <b>Undergraduate Fellowships</b><br>University of São Paulo (USP)                                                                                   |
| 2019              | <b>Best-Performing Project</b><br>Innovation and Entrepreneurship Incentive Program (InovaGrad) of the University of São Paulo (USP)                |

## PUBLICATIONS

|      |                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2025 | <b>Translating the rOpenSci Dev Guide into Portuguese: Collaboration, Community, Challenges, and Impact</b><br>rOpenSci<br>Palmeira, F. B. L., Milz, B., Cabral, A. M., Saibene, Y. B., Vartanian, D., & Faria, P. (2025, November 25). <i>Translating the rOpenSci Dev Guide into portuguese: Collaboration, community, challenges, and impact</i> . rOpenSci. <a href="https://doi.org/10.59350/fgbq0-zcn87">https://doi.org/10.59350/fgbq0-zcn87</a> |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## AFFILIATIONS

Center for Metropolitan Studies  
 Researcher (2025-Present)

RESICLIMA Network  
 Researcher (2024-Present)

Sustentarea  
 Researcher (2024-Present)

rOpenSci  
 Software Developer (2021-Present)

Interdisciplinary Sleep Research Group (GIPSO)  
 Researcher (2016-2022)

## LANGUAGES

 danielvartan

English

 Fluent

 Fluent

 Fluent

 Fluent

Portuguese

 Native

 Native

 Native

 Native

Spanish

 Proficient

 Proficient

 Intermediate

 Intermediate

French

 Beginner

 Beginner

 Beginner

 Beginner

- 2025 ● **Associations Between the Duration and Quality of Sleep in Third-Trimester Pregnant Women with the Duration of Labor: Preliminary Results**  
14th Brazilian Congress of Collective Health (Abrascão)  
Sales, A. R. V., Vartanian, D., Andrade, M. A. M. de, Lima, M. S., Pedrazzoli, M., & Chofakian, C. B. do N. (2025, December 1). Associações entre a duração e a qualidade do sono de gestantes no terceiro trimestre com a duração do trabalho de parto: Resultados preliminares [Associations between the duration and quality of sleep in third-trimester pregnant women with the duration of labor: Preliminary results]. 14º Congresso Brasileiro de Saúde Coletiva [14th Brazilian Congress of Collective Health], Brasília, DF. <https://doi.org/10.13140/RG.2.2.24115.49442>
- 2025 ● **Is Latitude Associated with Chronotype?**  
University of São Paulo (USP)  
Vartanian, D. (2025). *Is latitude associated with chronotype?* [Master's thesis, University of São Paulo]. <https://doi.org/10.11606/D.100.2025.tde-02042025-063648>
- 2024 ● **Associations Between the Duration and Quality of Sleep in Third-Trimester Pregnant Women with the Duration of Labor: Preliminary Results**  
32nd International Symposium on Undergraduate Research of the University of São Paulo (SIICUSP)  
Lima, M. S., Sales, A. R. V., Vartanian, D., Andrade, M. A. M. de, Pedrazzoli, M., & Chofakian, C. B. do N. (2024, November 6). *Associations between the duration and quality of sleep in third-trimester pregnant women with the duration of labor: Preliminary results* [Poster presentation]. 32nd International Symposium on Undergraduate Research of the University of São Paulo, São Paulo, SP, Brazil. <https://doi.org/10.13140/RG.2.2.18090.73927>
- 2023 ● **Actigraphic Characterization of Sleep and Circadian Phenotypes of PER3 Gene VNTR Genotypes**  
Chronobiology International  
Viana-Mendes, J., Benedito-Silva, A. A., Andrade, M. A. M., Vartanian, D., Gonçalves, B. da S. B., Cipolla-Neto, J., & Pedrazzoli, M. (2023). Actigraphic characterization of sleep and circadian phenotypes of PER3 gene VNTR genotypes. *Chronobiology International*, 40(9), 1244–1250. <https://doi.org/10.1080/07420528.2023.2256858>
- 2022 ● **Ecology of Sleep and Circadian Phenotypes of The Brazilian Population**  
São Paulo School of Advanced Science on Ecology of Human Sleep and Biological Rhythms  
Vartanian, D., & Pedrazzoli, M. (2022, November 19). *Ecology of sleep and circadian phenotypes of the Brazilian population* [Poster presentation]. São Paulo School of Advanced Science on Ecology of Human Sleep and Biological Rhythms, São Paulo, SP, Brazil. <https://doi.org/10.13140/RG.2.2.25343.07840>

- 2022 ● **Associations Between the Duration and Quality of Sleep of Pregnant Women in the Third Trimester with the Duration of Labor**  
São Paulo School of Advanced Science on Ecology of Human Sleep and Biological Rhythms  
Sales, A. R. V., Vartanian, D., Andrade, M. A. M., & Pedrazzoli, M. (2022, November 19). *Associations between the duration and quality of sleep of pregnant women in the third trimester with the duration of labor* [Poster presentation]. São Paulo School of Advanced Science on Ecology of Human Sleep and Biological Rhythms, São Paulo, SP, Brazil. <https://doi.org/10.13140/RG.2.2.28698.52169>
- 2022 ● **actverse: An R Package for Actigraphy Data Analysis**  
30th International Symposium on Undergraduate Research of the University of São Paulo (SIICUSP)  
Matias, V. A., Serrano, C., Vartanian, D., Pedrazzoli, M., & Benedito-Silva, A. A. (2022, September 3). *actverse: An R package for actigraphy data analysis* [Poster presentation]. 30th International Symposium on Undergraduate Research of the University of São Paulo, São Paulo, SP, Brazil. <https://doi.org/10.13140/RG.2.2.12760.16643>
- 2021 ● **Brazilian Actigraphy Consensus**  
Segmento Farma Editores  
Pedrazzoli, M., & Gonçalves, B. S. B. (Eds.) (with Benedito-Silva, A. A., Toscanini, A. C., Souza, A. P. P. B., Conway, B. A., Vartanian, D., Santos, E. H. R., Pires, M. L. N., & Leocadio-Miguel, M. A.). (2021). *Consenso brasileiro de actigrafia* [Brazilian actigraphy consensus]. Segmento Farma Editores. ISBN 978-65-992059-6-5.
- 2021 ● **Technical Specifications and Recommendations for the Use of Actigraphy**  
Segmento Farma Editores  
Benedito-Silva, A. A., Gonçalves, B. S. B., Vartanian, D., & Santos, E. H. R. (2021). *Especificações técnicas e recomendações sobre o uso da actigrafia* [Technical specifications and recommendations for the use of actigraphy]. In M. Pedrazzoli & B. da S. B. Gonçalves (Eds.), *Consenso brasileiro de actigrafia* [Brazilian actigraphy consensus] (pp. 13–28). Segmento Farma Editores. ISBN 978-65-992059-6-5.
- 2021 ● **Sleep and Biological Rhythm Variables in Actigraphy**  
Segmento Farma Editores  
Benedito-Silva, A. A., Souza, A. P. P. B., Toscanini, A. C., Conway, B. A., Gonçalves, B. S. B., Vartanian, D., Pires, M. L. N., Leocadio-Miguel, M. A., & Pedrazzoli, M. (2021). *Variáveis de sono e ritmos biológicos na actigrafia* [Sleep and biological rhythm variables in actigraphy]. In M. Pedrazzoli & B. da S. B. Gonçalves (Eds.), *Consenso brasileiro de actigrafia* [Brazilian actigraphy consensus] (pp. 29–42). Segmento Farma Editores. ISBN 978-65-992059-6-5.

- 2021 ● **Actigraphy in Research**  
Segmento Farma Editores
- Santos, E. H. R., Leocadio-Miguel, M. A., Vartanian, D., & Pedrazzoli, M. (2021). *Actigrafia na pesquisa* [Actigraphy in research]. In M. Pedrazzoli & B. da S. B. Gonçalves (Eds.), *Consenso brasileiro de actigrafia* [Brazilian actigraphy consensus] (pp. 43–62). Segmento Farma Editores. ISBN 978-65-992059-6-5.
- 2021 ● **Actigraphic Data Collection – ActTrust**  
protocols.io
- Vartanian, D. (2021). *Coleta de dados actigráficos – ActTrust* [Actigraphic data collection – ActTrust]. protocols.io. <https://doi.org/10.17504/protocols.io.4r3l241x4gly/v4>
- Roles (CRediT): Conceptualization, Methodology, Investigation, Project administration, Writing – original draft, Writing – review & editing
- 2021 ● **Expression of the Sleep-Wake Cycle Throughout Pregnancy: A Systematic Literature Review**  
28th International Symposium on Undergraduate Research of the University of São Paulo (SIICUSP)
- Sales, A. R. V., Vartanian, D., Rodrigues, I., & Pedrazzoli, M. (2020, November 11). *Expression of the sleep-wake cycle throughout pregnancy: A systematic literature review* [Poster presentation]. 28th International Symposium on Undergraduate Research of the University of São Paulo, São Paulo, SP, Brazil. <https://doi.org/10.13140/RG.2.2.29742.79682>
- 2021 ● **Characterization of Circadian Rhythms and Body Mass Index (BMI) in Individuals with Different Genotypes for Gene PER3: Comparison Between Daytime and Nighttime College Students**  
16th Latin American Symposium on Chronobiology (LASC)
- Viana-Mendes, J., Andrade, M. A. M., Vartanian, D., Benedito-Silva, A. A., & Pedrazzoli, M. (2021, October 6). *Characterization of circadian rhythms and body mass index (BMI) in individuals with different genotypes for gene PER3: Comparison between daytime and nighttime college students*. XVI Latin American Symposium on Chronobiology, Buenos Aires, Argentina. <https://doi.org/10.13140/RG.2.2.11287.85923/1>
- 2021 ● **mctq: An R package for the Munich ChronoType Questionnaire**  
useR! 2021 - The R Conference
- Vartanian, D., Benedito-Silva, A. A., & Pedrazzoli, M. (2021, July 6). *mctq: An R package for the Munich ChronoType Questionnaire* [Elevator pitch]. useR! 2021 - The R Conference, Online. <https://doi.org/10.13140/RG.2.2.12126.72005/2>

- 2021 • **mctq: An R package for the Munich ChronoType Questionnaire**  
16th Latin American Symposium on Chronobiology (LASC)  
Vartanian, D., Benedito-Silva, A. A., & Pedrazzoli, M. (2021, October 6). *mctq: An R package for the Munich ChronoType Questionnaire* [Poster presentation]. XVI Latin American Symposium on Chronobiology, Buenos Aires, Argentina. <https://doi.org/10.13140/RG.2.2.32357.92645>
- 2020 • **Early Chronotype with Advanced Activity Rhythms and Dim Light Melatonin Onset in a Rural Population**  
Journal of Pineal Research  
Ruiz, F. S., Bejjamini, F., Beale, A. D., Gonçalves, B. D. S. B., Vartanian, D., Taporoski, T. P., Middleton, B., Krieger, J. E., Vallada, H., Arendt, J., Pereira, A. C., Knutson, K. L., Pedrazzoli, M., & Von Schantz, M. (2020). Early chronotype with advanced activity rhythms and dim light melatonin onset in a rural population. *Journal of Pineal Research*, 69(3). <https://doi.org/10.1111/jpi.12675>



## SOFTWARE PROJECTS

- 2026 • **LogoPak**  GitHub  
Creator and Maintainer  
[NetLogo Flatpak](#) package.
- 2026 • **LogoActions**  GitHub  
Creator and Maintainer  
[GitHub Actions](#) for the [NetLogo](#) community.
- 2026 • **LogoShapes**  GitHub  
Creator and Maintainer  
[NetLogo](#) library of vector graphics.
- 2026 • **LogoUtils**  GitHub  
Creator and Maintainer  
[NetLogo](#) utility functions.
- 2025 • **FantasticLogo**  Modeling Commons  
Creator and Maintainer  
[NetLogo](#) model for simulating predator-prey dynamics.  
• Published on [Modeling Commons](#).
- 2025 • **logolink**  CRAN  
Creator and Maintainer  
[R](#) package providing a [tidy](#) interface between [R](#) and [NetLogo](#).  
• Published on [CRAN](#) (1,200+ downloads).  
• Currently under [peer review](#) by [rOpenSci](#).



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| 2025 | <p><b>LogoScope</b></p> <p>Creator and Maintainer  Visual Studio Code Marketplace</p> <p>VS Code extension providing syntax highlighting for NetLogo.</p> <ul style="list-style-type: none"> <li>Published on Visual Studio Code Marketplace (227 installs) and Open VSX (842 downloads).</li> </ul>        |
| 2025 | <p><b>Logônia</b></p> <p>Creator and Maintainer  CoMSES Net</p> <p>NetLogo model of plant growth response driven by climate conditions from WorldClim 2.1.</p> <ul style="list-style-type: none"> <li>Published on CoMSES Net.</li> </ul>                                                                   |
| 2025 | <p><b>LogoClim</b></p> <p>Creator and Maintainer  CoMSES Net</p> <p>NetLogo model developed to simulate and visualize climate conditions using data from WorldClim 2.1.</p> <ul style="list-style-type: none"> <li>Published on CoMSES Net.</li> <li>Currently under peer review in JOSS (2025).</li> </ul> |
| 2025 | <p><b>SISVAN Nutritional Status Pipeline</b></p> <p>Creator and Maintainer  GitHub</p> <p>R pipeline for processing SISVAN microdata on nutritional status monitoring in Brazil.</p>                                                                                                                        |
| 2025 | <p><b>CRAN Logs</b></p> <p>Creator and Maintainer  GitHub</p> <p>Shiny dashboard for visualizing download statistics from the Comprehensive R Archive Network (CRAN).</p>                                                                                                                                 |
| 2025 | <p><b>ODD Protocol Template</b></p> <p>Creator and Maintainer  GitHub</p> <p>LaTeX and Google Docs template for the ODD protocol, compliant with the formatting guidelines of the American Psychological Association (APA).</p>                                                                           |
| 2025 | <p><b>groomr</b></p> <p>Creator and Maintainer  GitHub</p> <p>R package with tools to efficiently tidy and organize R objects and files.</p>                                                                                                                                                              |
| 2025 | <p><b>orbis</b></p> <p>Creator and Maintainer  GitHub</p> <p>R package with tools to simplifying spatial data analysis.</p>                                                                                                                                                                               |
| 2025 | <p><b>quartor</b></p> <p>Creator and Maintainer  GitHub</p> <p>R package that provides a set of tools designed to facilitate the use of the Quarto publishing system.</p>                                                                                                                                 |



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| 2024 | <p><b>brandr</b></p> <p>Creator and Maintainer  CRAN</p> <p>R package for managing brand visual identity in data products using the <b>brand.yml</b> standard.</p> <ul style="list-style-type: none"> <li>• Published on <b>CRAN</b> (2,400+ downloads).</li> </ul>                                                                                                                                     |
| 2024 | <p><b>prettycheck</b></p> <p>Creator and Maintainer  GitHub</p> <p>R package for expressive and user-friendly assertive programming.</p>                                                                                                                                                                                                                                                                |
| 2024 | <p><b>entrainment</b></p> <p>Creator and Maintainer  GitHub</p> <p>Experimental <b>Python</b> rule-based model of 24-hour light/dark cycle entrainment.</p>                                                                                                                                                                                                                                             |
| 2024 | <p><b>html-colors</b></p> <p>Creator and Maintainer  Espanso Hub</p> <p><b>Espanso</b> package for seamlessly inserting HTML color codes into text.</p> <ul style="list-style-type: none"> <li>• Published on <b>Espanso Hub</b>.</li> </ul>                                                                                                                                                            |
| 2023 | <p><b>actverse</b></p> <p>Creator and Maintainer  GitHub</p> <p>R package providing a <b>tidy</b> toolbox for <b>actigraphy</b> data analysis.</p>                                                                                                                                                                                                                                                    |
| 2023 | <p><b>abnt</b></p> <p>Creator and Maintainer  GitHub</p> <p><b>Quarto</b> template for theses and dissertations following the Brazilian Association of Technical Standards (<b>ABNT</b>) guidelines.</p>                                                                                                                                                                                              |
| 2023 | <p><b>iramuteqlike</b></p> <p>Creator and Maintainer  GitHub</p> <p>R package with tools to reproduce the <b>IRaMuTeQ</b> software analyses in R.</p>                                                                                                                                                                                                                                                 |
| 2022 | <p><b>lubritime</b></p> <p>Creator and Maintainer  GitHub</p> <p>R package that extends the <b>lubridate</b> package from <b>tidyverse</b> with additional features for handling temporal objects.</p>                                                                                                                                                                                                |
| 2021 | <p><b>mctq</b></p> <p>Creator and Maintainer  CRAN</p> <p>R package providing a <b>tidy</b> toolbox for processing the Munich ChronoType Questionnaire (<b>MCTQ</b>).</p> <ul style="list-style-type: none"> <li>• Published on <b>CRAN</b> (13,000+ downloads).</li> <li>• <b>Peer reviewed</b> by <b>rOpenSci</b>.</li> <li>• Cited in chronobiology research across multiple countries.</li> </ul> |

- 2021 **lockr**  GitHub  
Creator and Maintainer  
R package for easy file encryption and decryption.
- 2021 **refstudio**  GitHub  
Creator and Maintainer  
R package with tools to extract and process bibliographic references.
- 2012 **Crowding**  GitHub  
Creator and Maintainer  
NetLogo model developed to simulate attendance in bars and restaurants.

## TALKS

- 2025 **Exploring Climate Effects with Agent-Based Models**  Recife, PE, Brazil  
RESICLIMA Network
- 2025 **Prediction and Interaction in Agent-Based Models**  Online  
Agent-Based Modeling Study Group
- 2025 **Modeling the Global Syndemic with ABM**  São Paulo, SP, Brazil  
University of São Paulo (USP)
- 2024 **Exploring Complexity with Agent-Based Models**  Recife, PE, Brazil  
RESICLIMA Network
- 2021 **mctq: An R Package for the Munich ChronoType Questionnaire**  Online  
useR! 2021 Conference

## OUTREACH PROJECTS

- Present | 2025 **Interdisciplinary Brazilian Symposium on Agent-Based Models (SIMBRA)**  São Paulo, SP, Brazil  
University of São Paulo (USP)  
Co-founded SIMBRA as an extension of USP's **Agent-Based Modeling Study Group** to provide a national platform for researchers and students across disciplines to discuss and disseminate agent-based modeling approaches.
- Present | 2024 **Agent-Based Modeling Study Group**  São Paulo, SP, Brazil  
University of São Paulo (USP)  
Founded USP's Agent-Based Modeling Study Group for students and researchers to explore agent-based modeling in complex systems research.

- Present  
|  
2024
- **Sleep Biology and Human Health**  
University of São Paulo (USP)  Online  
Co-developed the Coursera course *Biologia do Sono e Saúde Humana* (Sleep Biology and Human Health) to make sleep science accessible to the general public.
- 2018  
|  
2017
- **Durma na EACH (Sleep at EACH)**  
University of São Paulo (USP)  São Paulo, SP, Brazil  
Created sleep and rest spaces for students at EACH-USP with plans for expansion to São Paulo public schools.



## EVENTS

- 2025
- **Second Meeting of Multidisciplinary Perspectives on Climate Change of the RESICLIMA Network**  
Participant and Speaker  Recife, PE, Brazil
- 2024
- **First Meeting of Multidisciplinary Perspectives on Climate Change of the RESICLIMA Network**  
Participant and Speaker  Recife, PE, Brazil
- 2022
- **30th International Symposium on Undergraduate Research of the University of São Paulo (SIICUSP)**  
Reviewer  São Paulo, SP, Brazil
- 2022
- **São Paulo School of Advanced Science on Ecology of Human Sleep and Biological Rhythms**  
Participant  São Paulo, SP, Brazil
- 2021
- **18th Brazilian Sleep Congress**  
Participant and Speaker  São Paulo, SP, Brazil
- 2021
- **useR! 2021 Conference**  
Participant and Speaker  Online
- 2021
- **16th Latin American Symposium on Chronobiology (LASC)**  
Participant  Online
- 2021
- **16th Brazilian Symposium on Chronobiology (SBCRONO)**  
Participant and Speaker  Online
- 2021
- **28th International Symposium on Undergraduate Research of the University of São Paulo (SIICUSP)**  
Participant  Online
- 2018
- **15th Brazilian Symposium on Chronobiology (SBCRONO)**  
Participant and Organizer  Tijucas do Sul, PR, Brazil



## ADDITIONAL TRAINING

- 2024 • **Modelos Baseados em Agentes (Agent-Based Models)**  
University of São Paulo (USP) 📍 São Paulo, SP, Brazil
- In-person course on agent-based modeling with a focus on public health. Instruction was provided by [Leandro Garcia](#), Senior Lecturer in Complexity Science in Public Health at the Centre for Public Health, Queen's University Belfast.
- Workload: 28 hours
- 2024 • **Introduction to Agent-Based Modeling**  
[Santa Fe Institute](#) 📍 Online ([Complexity Explorer](#))
- Introductory course on agent-based modeling with a focus on applying the method to analyze complex systems across various fields, including economics, biology, political science, and management. The course was taught by [Bill Rand](#), a professor of marketing at North Carolina State University and coauthor of [An Introduction to Agent-Based Modeling](#)—one of the most widely used textbooks in the field—written in collaboration with [Uri Wilensky](#), the creator of NetLogo.
- Workload: ~66 hours
- 2022 • **São Paulo School of Advanced Science on Ecology of Human Sleep and Biological Rhythms**  
University of São Paulo (USP) 📍 São Paulo, SP, Brazil
- In-person international school attended by 50 foreign and 50 Brazilian students, along with leading chronobiology experts from around the world. The event was held from November 11 to November 26, 2022, at the School of Public Health (FSP), University of São Paulo (USP).
- Workload: 68 hours
- 2022 • **Circadian Clocks: How Rhythms Structure Life**  
[Ludwig-Maximilians-Universität München](#) 📍 Online ([Coursera](#))
- Introductory course on chronobiology and circadian rhythms, taught by [Martha Merrow](#) and [Till Roenneberg](#)—two leading figures in the field of chronobiology.
- Workload: ~10 hours
- 2020 • **R Programming**  
[Johns Hopkins University](#) 📍 Online ([Coursera](#))
- Introductory course on R taught by [Roger D. Peng](#), [Jeff Leek](#), and [Brian Caffo](#)—well-known contributors to the global R community.
- Workload: ~20 hours
- 2019 • **Biologia do Sono (Sleep Biology)**  
University of São Paulo (USP) 📍 São Paulo, SP, Brazil
- In-person introductory in-person course on sleep biology, taught by Mario Pedrazzoli, my former supervisor at the University of São Paulo.
- Workload: 35 hours

- 2013 • **Access and Use of Technical-Scientific Information**  
 University of São Paulo (USP) 📍 São Paulo, SP, Brazil  
 In-person introductory course on literature review and evidence synthesis, taught by **Helene Mariko Ueno**, professor of public health at the School of Arts, Sciences, and Humanities (EACH), USP.  
 • Workload: 16 hours
- 2013 • **Art and Technique of Academic Writing**  
 University of São Paulo (USP) 📍 São Paulo, SP, Brazil  
 In-person introductory course on scientific writing.  
 • Workload: 20 hours



## EDUCATIONAL MATERIALS

- 2025 • **An Introduction to the R Programming Language**
- 2025 • **ODD Protocol Template**
- 2025 • **Railsback & Grimm (2019) Business Investor Model ABM**
- 2025 • **Illustration of the Bootstrap Method**
- 2024 • **Quarto Format for ABNT Theses and Dissertations**
- 2024 • **Illustration of the Lorenz System**
- 2024 • **Illustration of the SIR Model**
- 2024 • **Illustration of Lotka-Volterra's Predator-Prey Model**
- 2024 • **Illustration of the Central Limit Theorem & the Law of Large Numbers**
- 2023 • **Illustration of Fisher's Hypothesis in Brazil's Economy**