

# **Leonardo Brandão do Prado**

Master Student

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## **RESEARCH INTERESTS**

- a. The daily life production of urban climates at multiple scales (e.g., intra-urban scale, as UHI effects, and outdoor thermal comfort).
- b. The social, economic, racial, and gendered distribution of climate vulnerability and risk in urban areas.

*EN – Translation of activity or publication originally in Portuguese*

## **EDUCATION**

M.Sc. in Geography, 2023.

Federal University of Rio de Janeiro (UFRJ), Cidade Universitária/RJ, Brazil.

Master thesis title: Urban Climate and Thermal Comfort in the Periphery of Rio de Janeiro: An Essay based on Urban Climate Units (*En*)

B.Sc., Geography, 2019

Federal University of Viçosa (UFV), Viçosa/MG, Brazil.

Thesis title: The Land Use and Surface Temperature: A Case Study in the Ubá City – MG/Brazil (*En*)

## **COMPLEMENTARY TRAINING**

1. Data Visualization with Python: Plotly Library, online (5h), 2023.
2. Data Analysis with Python and Machine Learning, online (5), 2023.
3. Time Series Analysis with Python, online (5h), 2023.
4. Statistics for Data Science and Machine Learning, online (5h), 2023

## **ACADEMIC POSITIONS**

2024 – Intern, Department of Geography, Indiana University Bloomington  
Supervisor: Núbia Beray Armond (Under review)

2023/2 Intern, Department of Geography, São Paulo State University.  
Supervisor: Karime Pechutti Fante.

2022 – 2023 Researcher, Department of Geography, Federal University of São João Del Rei. Research: *Socioenvironmental crossing processes and monitoring of agricultural insurance areas in Brazil.*

Supervisor: Fernando Teixeira

## Publications

1. PRADO, L.B; MARCHETTI, G.E; PEREIRA, M.A; JUNIOR, J.R.A; SANTOS, F; SILVA, P.A.A; HIRSH, A; PINHEIRO, D.C; SANTOS, A.C.R; PIMENTA, F.M; ATAÍDE, G.M; CASTRO, R.V.O; FERREIRA, M.C; PINTO, W.S; TEIXEIRA, F.A; PEREIRA, G.; Spectral Analysis Model Utilizing Computational Tools for Identifying Crop Planting and Harvest Dates in Brazil. In Brazilian Symposium of Remote sensing, Florianópolis, 2023.
2. PRADO, L.B; MARCHETTI, G.E; PEREIRA, M.A; JUNIOR, J.R.A; SANTOS, F; SILVA, P.A.A; HIRSH, A; PINHEIRO, D.C; SANTOS, A.C.R; PIMENTA, F.M; ATAÍDE, G.M; CASTRO, R.V.O; FERREIRA, M.C; PINTO, W.S; TEIXEIRA, F.A; PEREIRA, G. Google Earth Engine as a tool for identifying climate anomalies in Brazil in: XXIII Brazilian Symposium on GeoInformatics, São José dos Campos, São Paulo, 2022.
3. PRADO, L. B.; Instances of outdoor thermal discomfort assessed using the TE and TEv index in the São Cristóvão neighborhood - RJ. In: Brazilian Symposium on Applied Physical Geography - SBGFA, Rio de Janeiro, 2022. (EN)
4. PINTO, W.S;PEREIRA, M.A; JUNIOR, J.R.A; SANTOS, F; MARCHETTI, G.E; SILVA, P.A.A; HIRSH, A;SANTOS, A.C.R; GOMES, I; PIMENTA, F.M; ATAÍDE, G.M; PEREIRA, G; CASTRO, R.V.O; FERREIRA, M.C; PRADO, L.B; TEIXEIRA, F.A;PINHEIRO, D.C.A compliance verification method for planting carried out in the context of Rural Insurance in Brazil with the Agricultural Risk Zoning (ZARC) in: XXIII Brazilian Symposium on GeoInformatics, São José dos Campos, São Paulo, 2022. (EN)
5. PRADO, L. B; FIALHO, E. S. ; SANTOS, L. G. F. Remote Sensing and Urban Climate: An Investigative Perspective through Surface Thermal Field in the Central Area of Viçosa. **Brazilian Journal of Climatology**, v. 27, p. 919-946, 2020. (EN)
6. PRADO, L.B; FERNANDES, L. A ; FIALHO, E. S. The variation of the air temperature, along the Ponte Nova-Ubá - MG (Brazil) route in the years of 2014 and 2015. **Cadernos de Geografia (COIMBRA)**, v. s/n, p. 55-69, 2018. (EN)
7. FIALHO, EDSON ; SANCHES, F. O. ; PAULO, M. L. S. ; FERNANDES, L. A ; PRADO, L. B. . Proximities and Contentions: An Analysis of Differences in Climatic Parameters Along the Transect Ponte Nova - Ubá in the Zona da Mata Mineira. **Brazilian Journal of Climatology**, v. 14, p. 357-368, 2018.

8. FERNANDES, L ;**PRADO, L. B**; FIALHO, E . The Relationship between the Geoecological and Anthropic Aspects for the Conformation of the Urban Climate of Viçosa-MG in the Synotic Situation of Stability in 2015. *Climate*, v. 5, p. 35, 2017;
9. **PRADO, L. B.**; SILVA, W. M. ; SARAIVA, C. S. ; MARCO, J. S. ; FIALHO, E. S. . Analysis of the Difference between Land Surface Temperature (LST) and Air Temperature in the Case of Viçosa - MG. In: GEONORDESTE - Regional Symposium on Geoprocessing and Remote Sensing, Salvador v. 8. 2017. (EN)
10. **PRADO, L. B.**; FIALHO, E. S. Topoclimatic Classification for the Topographic Profile from Ponte Nova to Ubá: A Case Study for the Zona da Mata Mineira - MG. In: GEONORDESTE - Regional Symposium on Geoprocessing and Remote Sensing. Salvador v. 8. 2017 (EN);
11. FERREIRA, G. R.; **PRADO, L. B.**; PAULO, M. L. S.; FIALHO, E. S. Seasonal Variation of Nighttime Cooling in Urban and Rural Environments in the city of Viçosa, MG., MG. In: International Symposium of Climaotology, 2017, Petrópolis, MG, 2017(EN);

## WORK PRESENTATION

1. **PRADO, L.B.**; Outdoor thermal discomfort: A case study of street vendors in the periphery of Rio de Janeiro. In: International Congress of Biometeorology. Oral presentation, 2023.
2. **PRADO, L.B**; Spectral Analysis Model Utilizing Computational Tools for Identifying Crop Planting and Harvest Dates in Brazil. In Brazilian Symposium of Remote sensing, Florianópolis. Oral presentation, 2023 (EN)
3. **PRADO, L. B.**; Instances of outdoor thermal discomfort assessed using the TE and TEv index in the São Cristóvão neighborhood - RJ. In: Brazilian Symposium on Applied Physical Geography - SBGFA, Rio de Janeiro. Oral presentation 2022. (EN)
4. **PRADO, L.B.**; Google Earth Engine as a tool for identifying climate anomalies in Brazil in: XXIII Brazilian Symposium on GeoInformatics, São José dos Campos, São Paulo, 2022.
5. **PRADO, L.B**; .A compliance verification method for planting carried out in the context of Rural Insurance in Brazil with the Agricultural Risk Zoning (ZARC) in: XXIII Brazilian Symposium on GeoInformatics, São José dos Campos, São Paulo, 2022. (EN)

6. PRADO, L. B.; Analysis of the Difference between Land Surface Temperature (LST) and Air Temperature in the Case of Viçosa - MG. In: GEONORDESTE - Regional Symposium on Geoprocessing and Remote Sensing, Salvador v. 8. 2017, Oral presentation. (EN)
7. PRADO, L. B.; Topoclimatic Classification for the Topographic Profile from Ponte Nova to Ubá, a Case Study for the Zona da Mata Mineira - MG. In: GEONORDESTE, 2017, Salvador. REGIONAL SYMPOSIUM ON GEOPROCESSING AND REMOTE SENSING, 2017. v. 8 (EN)
8. "PRADO, L. B; Climatic Conditions Favoring the Proliferation and Development of the Aedes aegypti Mosquito in the Municipality of Rio de Janeiro. In: Minas Gerais Geography Symposium, 2016, Juiz de Fora. PROCEEDINGS OF THE II MINAS GERAIS GEOGRAPHY SYMPOSIUM AND IV POSTGRADUATE GEOGRAPHY SEMINAR – 2016, 2016. (EN)

#### **Articles - submitted**

1. PRADO, L. B; FANTE, K.P. Human Biometeorology: Past, presente and future prospects. **Brazilian Journal of Climatology** (EN)

#### **Articles - in prep.**

1. PRADO,L.B. Vulnerability, Exposure and Human Thermal discomfort: A case Study in the periphery of Rio de Janeiro. **International Journal of Biometeorology**.
2. PRADO, L.B.; P, NASCIMENTO.; H, BARCELOS.; Urban geometry and Outdoor thermal comfort in Rio de Janeiro. **Climate Justice**.
3. PRADO,L.B.; ARMOND, N.B. ; Urban Climatic Map in the Tropics: Heat, Exposure, and Vulnerability. **Progress in Physical Geography**.

#### **INVITED TALKS**

**PRADO, L.B (2023).** Urban Climate and Thermal Comfort in the Carioca Periphery: An Essay from Urban Climate Units. Equitable places Lab – Arizona State University – Az, USA

**PRADO, L.B. (2023).** Pondering Human Thermal Comfort and Socio-spatial Vulnerabilities in the Face of the Informal Job Market in the periphery of Rio de Janeiro. 51<sup>st</sup> Geographical Studies Week, São Paulo State University – SP, Brazil. (EN)

**PRADO, L.B (2023).** Research Project in Geography: Challenges and theoretical-methodological approaches in climatology. São Paulo State University – SP, Brazil. (EN)

**PRADO, L.B (2022).** Climatic meetings: Biometeorology, Thermal comfort, and comfort index. Federal University of Viçosa, MG, Brazil. (EN)

**PRADO, L.B (2022).** Landscapes in a trance: Socioenvironmental verification process and monitoring of agricultural insurance areas in Brazil. Federal University of Viçosa, MG, Brazil. (EN)

**PRADO, L.B (2019).** Surface Heat island in the urban area of Viçosa, MG. Federal University of Viçosa, 3<sup>rd</sup> Seminar on Geography and Climate. Brazil. (EN)

## FELLOWSHIPS

2022-2023 Researcher fellowship III, Development in Science, Technology, and Innovation (BDCTI).

2020 – 2022 Master fellowship, Coordination for the Improvement of Higher Education (CAPES).

2016 – 2018 Undergraduate fellowship, National Council for Scientific and Technological Development (CNPq).

2015/2 Institutional Program for Teaching Initiation Scholarships (PIBID)

## AFFILIATIONS

Brazilian Association of Climatology  
International Society of Biometeorology

## COMMITTEES

### (Undergraduate level)

2023. Thiago Almeida Diniz. Identification of Heat Islands in Rio Claro - SP: A comparative analysis between neighborhoods with different economic profiles. São Paulo State University, Rio Claro, São Paulo, Brazil. (EN)

### (Graduate level)

2023. Leonardo Caçadini Bizerra da Silva. Human Thermal Comfort in Espírito Santo State: An Analysis based on hourly data throughout 2019. National School of Statistical Sciences - Brazilian Institute of Geography and Statistics, Rio de Janeiro, Rio de Janeiro, Brazil. (EN)

## CONFERENCES, SYMPOSIA, MEETINGS AND WORKSHOPS ORGANIZED

1. Climate and Society Workshop: University, Protection and Civil Defense – Monitoring and response to climate emergencies in Rio Claro, São Paulo State University. November 24, 2023.
2. III Geography and Climate Seminar. Federal University of Viçosa. August, 26, 2019
3. Bioclima Workshop. Federal University of Viçosa. October, 2016