# Mateus Maia

PHD CANDIDATE · MATHEMATICS AND STATISTICS

*National University of Ireland Maynooth , Ireland*

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## Education

**National University of Ireland Maynooth**                                                                  *Ireland*

PHD IN STATISTICS                                                                                     *April 2020 - present*

- Advisor: Dr. Andrew Parnell
- Fully funded by the Science Foundation of Ireland (SFI).
- Research topic: Bayesian Statistical Machine Learning.

**Federal University of Bahia**                                                                              *Brazil*

M.SC IN STATISTICS                                                                          *March 2018 - February 2020*

- Advisor: Dr. Anderson Ara
- Fully funded by the National Council for Scientific and Technological Development (CNPQ) of Brazil.
- Dissertation: "Random Machines - The Random Kernel Space for Constructing a Support Vector Ensemble".

**Federal University of Bahia**                                                                              *Brazil*

BSC. IN GEOPHYSICS                                                                         *March 2014 - February 2018*

- Partially funded from different grants from the National Council for Scientific and Technological Development (CNPQ) of Brazil.

## Professional Experience

2020-2023    **Graduate Teaching Assistant**, Maynooth University

## Publications

### PUBLISHED

**Maia, Mateus**, Keefe Murphy, and Andrew C. Parnell. "GP-BART: a novel Bayesian additive regression trees approach using Gaussian processes." Computational Statistics & Data Analysis (2023): 107858.

**Maia, Mateus**, *et. al.* . "Wavelet Support Vector Censored Regression." Analytics 2.2 (2023): 410-425.

Ara, A., **Maia, M.**, Louzada, F., & Macêdo, S. "Regression random machines: An ensemble support vector regression model with free kernel choice." Expert Systems with Applications 202 (2022): 117107.

**Maia, Mateus**, Arthur R. Azevedo, and Anderson Ara. "Predictive comparison between random machines and random forests." Journal of Data Science 19.4 (2021): 593-614.

Ara, A., **Maia, M.**, Louzada, F., & Macêdo, S. "Random machines: A bagged-weighted support vector model with free kernel choice." Journal of Data Science 19.3 (2021): 409-428.

**Maia, Mateus,** *et al.* "Convolutional support vector models: Prediction of coronavirus disease using chest x-rays." Information 11.12 (2020): 548.

Paz, H., **Maia, M.**, Moraes, F., Lustosa, R., Costa, L., Macêdo, S., & Ara, A. "Local processing of massive databases with R: a national analysis of a Brazilian social programme." Stats 3.4 (2020): 444-464.

## Awards, Fellowships & Grants

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|---|---|
| 2020-2024 | **Ph.D. Grant**, Science Foundation Ireland Career Development Award - Grant Number: 17/CDA/4695 |
| 2020-2024 | **Ph.D. Grant**, Science Foundation Ireland Research Centre Award - Grant Number: 12/RC/2289P2 |
| 2022 | **2nd place at the Best Master Thesis Competition**, 24th SINAPE | National Symposium on Probability and Statistics of Brazil organised by the Brazilian Association of Statistics. |
| 2018-2020 | **Master's Grant in Mathematics and Statistics**, National Council for Scientific and Technological Development of Brazil. |
| 2016-2017 | **Scientific Initiation Fellowship**, Member of the Theoretical and Applied Stratigraphy Group of UFBA (GETA-UFBA) funded by National Council for Scientific and Technological Development of Brazil. |
| 2015-2016 | **Scientific Initiation Fellowship**, Member of the Hydrogeological and Environmental Studies Center (NEHMA) funded by National Council for Scientific and Technological Development of Brazil. |
| 2014 | **1st place at Admissional National Exam in Geophysics Bachelor**, Federal University of Bahia - Brazil |

## Selected Contributed Presentations

*\* presenting author;*

Oral presentation: **Mateus Maia\* Keefe Murphy, and Andrew C. Parnell.** "sBART: novel extension to Bayesian additive regression trees using splines." Conference of Applied Statistics in Ireland (CASI) 2023 , Killaerney, Ireland.

Poster presentation: **Mateus Maia\* Keefe Murphy, and Andrew C. Parnell.** 2023. GP-BART: an extension to Bayesian additive regression trees approach using Gaussian processes" . BayesComp, 2023 . Kittila, Finland.

Oral presentation: **Mateus Maia\* Keefe Murphy, and Andrew C. Parnell.** " A new Extension For Bayesian Additive Regression Trees Model Adopting Gaussian Processes." Conference of Applied Statistics in Ireland (CASI) 2022 , Cork, Ireland.

## Teaching Experience

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| Fall 2023 | **Introduction to Statistics**, Teaching Assistant |
| Fall 2023 | **Introduction to R and Data Science**, Teaching Assistant |
| Spring 2022 | **Generalised Linear Models**, Teaching Assistant |
| Spring 2022 | **Statistical Machine Learning**, Teaching Assistant |
| Spring 2022 | **Linear Models**, Teaching Assistant |
| Fall 2021 | **Introduction to Statistics**, Teaching Assistant |
| Fall 2021 | **Introduction to R and Data Science**, Teaching Assistant |
| Spring 2021 | **Probability**, Teaching Assistant |

## Outreach

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| July 2023 | **Short Course: Support Vector Models - An Introduction to Statistical Machine Learning**, Anderson Ara\*, Raydonal Spinoza, Mateus Maia. 67ª RBras e 20º SEAGRO, Londrina, Paraná, Brazil. |

## Miscellaneous

**Languages**: English, Spanish, and Portuguese (native)

**Programming Languages**: R,C++, Markdown, LaTeX, Python and Julia .

## Referees

**Prof. Andrew Parnell** *Ireland*

Hamilton Institute - Maynooth University

- andrew.parnell@mu.ie

**Prof. Anderson Ara** *Brazil*

Federal University of Paraná

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**Prof. Marcos Enne Barreto** *United Kingdom*

LSE Data Science Institute

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