

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

- 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

- 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

- Short Course: Support Vector Models - An Introduction to Statistical Machine Learning**,
July 2023 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

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Prof. Anderson Ara

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