Marcus L. Nascimento

School of Applied Mathematics (EMAp) Getulio Vargas Foundation Rio de Janeiro, RJ 01228-200, Brazil Citizenship: Brazilian/Italian marcus.lavagnole@fgv.br github.com/marcuslavagnole

Professional Experience

Getulio Vargas Foundation Rio de Janeiro, Brazil Postdoctoral Researcher Oct 2024-Current José Luiz Egydio Setúbal Foundation São Paulo, Brazil Oct 2024-Oct 2025 Research Affiliate Research Scientist Sep 2023-Sep 2024 Rio de Janeiro City Hall Rio de Janeiro, Brazil Jan 2021-Oct 2024 Advisor Accenture Rio de Janeiro, Brazil Data Science Analyst Mar 2018-Feb 2019 Accenture Rio de Janeiro, Brazil

EDUCATION

Data Science Assistant

Federal University of Rio de Janeiro
D.Sc. in Statistics

Rio de Janeiro, Brazil
2019–2024

Federal University of Rio de Janeiro
M.Sc. in Statistics

Rio de Janeiro, Brazil
2016–2017

Federal University of Rio de Janeiro
B.Sc. in Actuarial Science

Rio de Janeiro, Brazil
2011–2015

OTHER EXPERIENCE

Federal University of Rio de Janeiro Rio de Janeiro, Brazil Research Assistant Mar 2023–Aug 2023

- Project: Machine learning methods for predicting willingness to pay for tax debtors in Rio de Janeiro.

| Getulio Vargas Foundation | Rio de Janeiro, Brazil |
|---------------------------|------------------------|
| Research Assistant | Jan 2022–Aug 2023 |

- Project: Machine learning methods for predicting preventable neonatal mortality in Brazil.

Institute for Applied Economic Research Research Assistant Rio de Janeiro, Brazil Apr 2019–Dec 2020

- Project: Economic Evaluation of Social Programs.

Institute for Applied Economic Research Research Assistant Research Assistant Rio de Janeiro, Brazil Mar 2017–Dec 2017

- Project: The economic impact of broadband expansion in Brazilian municipalities.

Sep 2015–Dec 2015

WORK IN PROGRESS

STATISTICS

Nascimento, Marcus L. "An Expectation-Maximization algorithm for noncrossing Bayesian quantile regression analysis under informative sampling".

Nascimento, Marcus L. and Gustavo S. Ferreira. "Mapping household food (in)security from both aggregated and disaggregated survey-based areal data".

HEALTH & SOCIAL SCIENCES

Ramos, Antonio P., Fábio Caldierado, Chad Hazlett, and Marcus L. Nascimento. "One pandemic is not like the other: Contrasting COVID-19 against a New Pandemic".

PUBLICATIONS

STATISTICS

Nascimento, Marcus L. and Kelly M. Gonçalves. "A Bayesian approach to multiple-output quantile regression analysis under informative sampling". Accepted at the Journal of Survey Statistics and Methodology,

Nascimento, Marcus L. and Kelly M. Gonçalves. "Bayesian quantile regression models for complex survey data under informative sampling". *Journal of Survey Statistics and Methodology*, vol. 12, no. 4, 2024, pp. 1105–1130.

HEALTH & SOCIAL SCIENCES

Ramos, Antonio P., Fábio Caldieraro, Marcus L. Nascimento, and Raphael Saldanha. "Reducing Inequalities by Using an Unbiased Machine Learning Approach to Identify Births with the Highest Risk of Preventable Neonatal Deaths". Accepted at Population Health Metrics,

Nascimento, Marcus L. and Leonardo M. Barreto. "Improving crime count forecasts in the city of Rio de Janeiro via reconciliation". *Security Journal*, vol. 37, no. 4, 2024, pp. 1597–1618.

Pre-Doctoral

Nascimento, Marcus L., Kelly M. Gonçalves, and Mario Jorge Mendonça. "Spatio-temporal instrumental variables regression with missing data: A Bayesian approach". *Computational Economics*, vol. 62, no. 1, 2023, pp. 27–49.

Nascimento, Marcus L. and Carlos Antonio Abanto-Valle. "Flexible robust mixture regression modeling". *REVSTAT*, Statistical Journal, vol. 20, no. 1, 2022, pp. 101–115.

Nascimento, Marcus L. and Kelly M. Gonçalves. "Bayesian variable selection in quantile regression with random effects: an application to Municipal Human Development Index". *Journal of Applied Statistics*, vol. 49, no. 13, 2022, pp. 3436–3450.

Nascimento, Marcus L., Ralph S. Silva, Mario Jorge Mendonça, and Amaro O. Pereira. "Estimating the efficiency of Brazilian electricity distribution utilities". *Journal of Applied Statistics*, vol. 49, no. 8, 2022, pp. 2157–2166.

Nascimento, Marcus L., Kalinca L. Becker, and Mario Jorge Mendonça. "Implications of Brazilian Institutional Guidelines on Educational Efficiency". *Economía, the journal of LACEA*, vol. 21, no. 1, 2020, pp. 147–168.