

# Marcus L. Nascimento

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Getulio Vargas Foundation  
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## PROFESSIONAL EXPERIENCE

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### Getulio Vargas Foundation

Postdoctoral Researcher

Rio de Janeiro, Brazil

2024–Current

### José Luiz Egydio Setúbal Foundation

Research Affiliate

Research Scientist

São Paulo, Brazil

2024–Current

2023–2024

### Rio de Janeiro City Hall

Advisor

Rio de Janeiro, Brazil

2021–2024

### Accenture

Data Science Analyst

Rio de Janeiro, Brazil

2018–2019

### Accenture

Data Science Assistant

Rio de Janeiro, Brazil

2015

## EDUCATION

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### Federal University of Rio de Janeiro

D.Sc. in Statistics

Rio de Janeiro, Brazil

2019–2024

- Dissertation: Bayesian quantile regression analysis of complex survey data under informative sampling.

### Federal University of Rio de Janeiro

M.Sc. in Statistics

Rio de Janeiro, Brazil

2016–2017

- Dissertation: Bayesian inference for finite mixture models of asymmetric distributions.

### Federal University of Rio de Janeiro

B.Sc. in Actuarial Science

Rio de Janeiro, Brazil

2011–2015

## RESEARCH INTERESTS

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- **Method:** survey statistics and quantile regression
- **Application:** actuarial, health and social sciences

## OTHER EXPERIENCE

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### Federal University of Rio de Janeiro

Research Assistant

Rio de Janeiro, Brazil

2023

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

## Getulio Vargas Foundation

Research Assistant

Rio de Janeiro, Brazil

2022–2023

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

## Institute for Applied Economic Research

Research Assistant

Rio de Janeiro, Brazil

2019–2020

- Project: Economic Evaluation of Social Programs.

## Institute for Applied Economic Research

Research Assistant

Rio de Janeiro, Brazil

2017

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

## WORK IN PROGRESS

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### UNDER REVIEW

Nascimento, Marcus L. and Kelly M. Gonçalves. “A Bayesian approach to multiple-output quantile regression analysis under informative sampling”.

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”.

### IN PREPARATION

Marcus L. Nascimento, Heudson T. Mirandola, Ralph S. Silva and Leon U. Barboza. “A decision support system for tax arrears recovery based on machine learning survival algorithms.”

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

## PUBLICATIONS

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### STATISTICS

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.

### CROSS-DISCIPLINARY

Nascimento, Marcus L. and Leonardo M. Barreto. “Improving crime count forecasts in the city of Rio de Janeiro via reconciliation”. *Security Journal*, to appear.

### 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.