

# Marcus L. Nascimento

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## ACADEMIC POSITIONS

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**José Luiz Egydio Setúbal Foundation**  
Research Scientist

São Paulo, Brazil  
2023–Current

## 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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- **Methods:** survey analysis, quantile regression, causal inference with observational data
- **Application:** health and social sciences

## PROFESSIONAL EXPERIENCE

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**Rio de Janeiro City Hall**  
Advisor

Rio de Janeiro, Brazil  
2021–Current

**Accenture**  
Data Science Analyst

Rio de Janeiro, Brazil  
2018–2019

**Accenture**  
Data Science Assistant

Rio de Janeiro, Brazil  
2015

## WORK IN PROGRESS

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### UNDER REVIEW

Nascimento, Marcus L. and Kelly M. Gonçalves. “Bayesian quantile regression models for bounded count data 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

Nascimento, Marcus L. and Kelly M. Gonçalves. “Bayesian multiple-output quantile regression for complex survey data under informative sampling.”

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

## 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*, to appear.

### 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.