Rodrigo Sarlo Antonio Filho

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Citizenship: Brazilian

Research interests

Time Series Forecasting, Machine Learning, Score-Driven Models

Education

2023 – 2026 **PUC-Rio** – Rio de Janeiro, Brazil
Doctoral degree in Electrical Engineering, Emphasis on Decision Support Methods
Dissertation: *Applications and methodological contributions in score-driven models*

2024 – 2026 **University of Illinois Urbana-Champaign (UIUC)** – Champaign, IL
Visiting Researcher, Department of Economics
Research on statistical machine learning and state-space models, including conformal prediction and matrix-valued state-space models.

2019 – 2021 **PUC-Rio** – Rio de Janeiro, Brazil
Master's degree in Electrical Engineering, Emphasis on Decision Support Methods
Thesis: *Intermittent demand forecasting in retail: applications of the GAS framework*.

2014 – 2018 **PUC-Rio** – Rio de Janeiro, Brazil
Bachelor's degree in Economics

Honors and scholarships

2019 **Bolsa Nota 10, FAPERJ** (Special scholarship from the State of Rio de Janeiro)

Publications

2025 **Score-driven models for inventory control of intermittent demand**
Rodrigo Sarlo, Cristiano Fernandes, Denis Borenstein.
Journal of the Operational Research Society. DOI: 10.1080/01605682.2025.2589912.

2025 **Forecasting intermittent demand with dynamic Poisson mixtures - a score-driven approach**
Rodrigo Sarlo, Denis Borenstein, Cristiano Fernandes.
LVII Brazilian Symposium on Operations Research. DOI: 10.59254/sbpo-2025-212628.

2022 **Lumpy and intermittent retail demand forecasts with score-driven models**
Rodrigo Sarlo, Cristiano Fernandes, Denis Borenstein.
European Journal of Operational Research, v. 306, p. 445-462.

Teaching experience

2026 **Lab Instructor, SIdE Summer Course (SIdE)** – Perugia, Italy
Presented hands-on lab sessions for the course *Machine Learning for Macro Forecasting and Financial Econometrics.* Developed and taught materials covering R/Quarto, tidymodels, penalized regressions, covariance shrinkage, tree-based methods, and deep learning. Repository: rodrigosarloaf/ml_macro_and_fin_side2026.

2024 – 2026 **Teaching Assistant, Econ Data Lab (UIUC)**
Mentorship of students in applied data analysis projects.

2014 – 2018 **Teaching Assistant, Department of Economics (PUC-Rio)**
Worked as a Teaching Assistant in Time Series Econometrics during undergraduate studies.

Industry experience

2021 – 2022 **Asset 1 Investment Company (Quantitative Analyst)** – São Paulo, Brazil
Forecasting of disaggregated inflation rates and analysis of social network data during the 2022 Brazilian presidential elections. Development of econometric and machine learning models, and maintenance of supporting databases.

2020 – 2021 **Kogno Economics (Partner)** – Rio de Janeiro, Brazil
Consulting on corporate forecasting projects and development of applied econometric models. Execution of in-company training programs on Python and R for machine learning and econometrics.

2021 **Warwick Econometrics (Data Scientist)** – Coventry, UK
Analysis of international trade data, developing econometric and machine learning models for import and export dynamics.

2018 – 2021 **NASDA PUC-Rio (Researcher)** – Rio de Janeiro, Brazil
Development of econometric models for retail price optimization and inventory management. Demand forecasting research developed in partnership with Lojas Americanas.

2017 – 2018 **Econometric Traces (Intern)** – Rio de Janeiro, Brazil
Assistant at consultancy projects. Worked on projects related to demand forecasting in retail and communications.

Talks and presentations

2020 **Zero-inflated count data models for daily retail sales: a forecasting exercise**
International Symposium on Forecasting (ISF) 2020

Service

2023 – Present **Referee**
Brazilian Review of Finance; Journal of Financial Econometrics; LVIII Simpósio Brasileiro de Pesquisa Operacional; Quarterly Review of Economics and Finance

Technical skills

Programming & Tools
R (Advanced), Python, SQL, Git, LaTeX

Languages
Portuguese (Native), English (Fluent), Spanish (Basic)