

Eduardo Laurentino

Senior Research Data Scientist · Causal Inference · Experimentation & Reinforcement Learning · Pricing

São Paulo, Brazil | eduardorochalaurentino@gmail.com | eduardo.laurentino@usp.br | +55 11 97619-4432

dulauren.cybersocial.space | linkedin.com/in/eduardo-laurentino | GitHub | Portuguese (native) · English (C1) · German (A2)

PROFILE

Research data scientist with 5 years at Itaú Unibanco, Latin America's largest bank, and founding member of its R&D institute (ICTi), turning causal inference, experimentation and reinforcement learning into products and research. M.Sc. candidate at the University of São Paulo, with a long track record in technology for social good.

EXPERIENCE

ICTi – Itaú Institute of Science and Technology (R&D arm of Itaú Unibanco)

São Paulo, Brazil

Senior Research Data Scientist, Quantum & Applied Analytics

Apr 2025 – Present

Research Data Scientist

Apr 2024 – Apr 2025

- Designed a causal root-cause-analysis methodology that outperforms the field's benchmarks, built for AIOps teams to scale observability of latency degradation in microservices (BRACIS 2025).
- Organizer of **UAIItaú**, the causal inference chapter across ICTi and Itaú.

Itaú Unibanco – Artificial Intelligence Community

São Paulo, Brazil

Data Scientist II

Dec 2022 – Apr 2024

Data Scientist I

Oct 2021 – Dec 2022

- Created and maintained **Pricefy**, a data-science pricing product for business analysts: elasticity-based optimal price recommendations, revenue optimization and customer clustering.
- Designed the core design pattern of the bank's hypothesis-testing and statistical-inference packages, adopted by the team that owns the experimentation platform.
- Built a cloud-based recommendation system from scratch.

Compensa

Brazil

Data Scientist (social-impact startup, founding team)

Jul 2021 – Nov 2021

Shaped the technical strategy and data-science foundations of the company's minimum viable product.

Movva

Brazil

Data Scientist (EdTech)

Feb 2021 – Aug 2021

Co-led production ETL pipelines and dashboards; applied epidemiology-style compartmental models to reduce dropout in Brazilian public schools.

Amazon

São Paulo, Brazil

Software Development Engineer Intern, FinTech

Aug 2020 – Feb 2021

Built a cloud-based service supporting tax-evaluation pipelines for Brazilian fulfillment centers, within a global team.

EDUCATION

University of São Paulo – Institute of Mathematics and Statistics (IME-USP)

São Paulo, Brazil

M.Sc. in Computer Science

2023 – 2026 (expected)

- Working title: *Causal Inference in Environmental Health with Brazilian Public Health System (SUS) Data*. Advisors: Prof. Fabio Kon and Prof. Denis D. Mauá.

University of São Paulo – IME-USP

São Paulo, Brazil

B.Sc. in Computer Science, emphasis on Artificial Intelligence and Software Systems

2017 – 2022

- Thesis: computational models of COVID-19 dynamics in Greater São Paulo, supervised at Instituto Butantan.
- Exchange in Information Systems for Sustainable Society, University of Cologne, Germany (2019–20), on a USP merit scholarship; earned a **C1 English** certificate there.

SOCIAL IMPACT & LEADERSHIP

- Co-founder of **Tecs**, a computer-science-for-social-good organization (TechShift Alliance), and of **BeeData**, a non-profit training students for data-science competitions (PIPA Award, 2020).
- Brazilian representative at the TechShift Summit on technology governance, University of Chicago (2018); member of the Ethics, Technology and Digital Economies study group (IEE-USP).
- Youth@ForumBR fellow and invited rapporteur of the digital-accessibility panel at the Brazilian Internet Forum (2018), authoring its report *Acessibilidade digital e a governança da internet no Brasil* for Movimento Web Para Todos.

SELECTED PUBLICATIONS

- E. R. Laurentino**, F. G. Cozman, D. D. Mauá, D. A. E. Lawand, D. G. B. Coelho, L. M. Marques. *Probabilities of Causation and Root Cause Analysis with Quasi-Markovian Models*. Brazilian Conference on Intelligent Systems (BRACIS 2025), LNCS (Springer), pp. 362–376, 2026. doi:10.1007/978-3-032-15984-7_25. Extended version under submission to *Applied Soft Computing* (Elsevier).
- J. P. Arroyo, J. G. Rodrigues, D. Lawand, D. D. Mauá, J. Lee, R. Marinescu, A. Gray, **E. R. Laurentino**, F. G. Cozman. *Multi-linear and Linear Programs for Partially Identifiable Queries in Quasi-Markovian Structural Causal Models*. Causal Abstractions and Representations Workshop at UAI 2025. arXiv:2509.03548
- J. V. F. Alves, **E. R. Laurentino**, G. O. Kanno, T. C. R. da Rocha. *Offline Policy Evaluation as a Decision Support Tool for Designing Adaptive Experiments*. Accepted at BRACIS 2026 (LNCS, Springer, to appear). arXiv:2609.30273