

Guilherme F. P. Salome

CONTACT

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SUMMARY

Senior data scientist and team lead with a PhD in Economics and MS in Mathematics, building causal and machine learning systems from first principles to production. I currently lead **Dynamic Targeting**, which guides salesforce engagements across all LillyUSA business units. Hands-on with modeling and code, while also guiding data scientists, working with field and medical partners, and turning messy problems into clear and scalable products.

SKILLS

Statistics & ML: Predictive modeling, time series, panel data, survival, mixed effects, gradient boosting, Bayesian modeling, simulation.
Causal Inference: Matching, DiD, IV, Double ML, experimentation.
Coding: R, Python, SQL, Bash, C++, Make, Emacs, Git; Redshift, workflow automation.
Leadership: Technical leadership, strategic planning, sprint design (Jira), cross-functional decision-making with marketing, sales, and medical affairs.
Languages: Portuguese (native), English (fluent).

EXPERIENCE

Eli Lilly and Company Indianapolis, IN, USA
Senior Advisor – Data Science 2022 – Present

- Lead the **Dynamic Targeting (DT)** platform, which produces **500k+ monthly HCP call suggestions** for **2,600** reps across Cardiometabolic Health, Immunology, Oncology, Neurology, and Gastroenterology, prioritizing **200,000** high-opportunity HCPs per cycle.
- Designed and led a causal impact framework (CEM-matched cohorts + GLMs + IV) showing a **2% lift in salesforce-impacted revenue** attributable to DT, with results reviewed and accepted by statisticians and business leadership.
- Transitioned DT operations to an LCCI team of **5 data scientists and 1 manager** by building runbooks, code walkthroughs, Jira workflows, and quality checks; the team now owns end-to-end production with **100% on-time delivery** and direct cross-functional partnership.
- Developed key R&D capabilities around DT and impact measurement, including a **pharma marketing simulation environment**, a **payer-win integration** that encodes formulary/access shifts into DT, and a **multi-method Medical Affairs impact framework** (DiD, event-study, DoubleML, Bayesian hierarchical models) linked to diagnosis and treatment outcomes.

Advisor – Data Science 2020 – 2022

- Built an **automated Marketing Mix Modeling (MMM) pipeline** covering **17 brands** and **\$500M+ in annual spend**, enabling rapid scenario testing and budget reallocation (*2022 CIDO Award*).
- Designed and analyzed **\$80M+ in marketing experiments**, identifying optimizations that delivered **\$40M+ in incremental revenue and savings**.
- Created a reusable **R framework** for commercial analytics and led a **4-person team** across the US and India to improve HCP targeting by **20%+**, influencing **\$1B+** in commercial investments.

Duke University Durham, NC, USA
Lecturer 2018 – 2019

- Taught **Financial Econometrics, Python, and Matlab** to **100+ MS and PhD students**, developing modern, code-based materials and managing teaching assistants.

EDUCATION

PhD, Economics – Duke University, USA 2015 – 2020
MS, Mathematics – IMPA, Brazil 2012 – 2014
BS, Economics – Insper, Brazil 2008 – 2011

PUBLICATIONS & Selected Research

AWARDS Disagreement in Market Index Options (J. Financial Econometrics, 2024)

Awards

Eli Lilly *GOSO Excellence Award* (2025), *CIDO Award* (2022), *Colonel Award* (2021). Fellowships *Duke University* (2015–2020), *IMPA* (2012–2014); *Insper Scholarship* (2010–2011).