Guilherme Salome

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SKILLS

Statistics: Predictive modeling, Bayesian statistics, causal inference, experimental design, survival analysis, time series forecasting, deep learning, ensemble methods, kernel methods.

Causal Inference: Difference-in-differences, instrumental variables, regression discontinuity, matching, A/B testing, uplift modeling, heterogeneous treatment effects.

Leadership: Team leadership, mentorship, sprint planning, JIRA, stakeholder management, cross-functional collaboration, strategy alignment.

Programming: R, Python, SQL, Matlab, Bash, C++, Emacs, Make.

Deployment: Distributed computing, cloud ML pipelines, Kubernetes, workflow automation, real-time analytics.

Mathematics: Real analysis, optimization, numerical methods, linear algebra, probability.

Languages: English, Portuguese.

EXPERIENCE

Eli Lilly and Company

Sr. Advisor - Data Science

Indiana, USA

2022 - Present

Leading a team of data scientists to develop **Dynamic Targeting**, a real-time AI-driven system optimizing salesforce engagement. Spearheading the integration of **machine learning-driven insights** into sales operations, improving rep decision-making and engagement strategies. Expanded automation capabilities to enhance analytics efficiency and reduce manual effort in commercial insights generation. Partnering with senior leadership to embed data-driven decision-making into **key commercial strategies** across multiple therapeutic areas.

Managing a direct report and leading a broader team of 15+ colleagues in LCCI over multiple projects, ensuring alignment between technical work and business objectives. Driving project management in JIRA, overseeing sprint planning, deliverable tracking, and cross-team collaboration. Mentoring junior data scientists, fostering a high-performance analytics team, and shaping the long-term vision for scalable AI-driven marketing solutions.

Designed and deployed **causal inference frameworks** to measure and optimize the impact of marketing interventions, leveraging methodologies such as difference-in-differences and instrumental variables. Developed **Bayesian and probabilistic models** to improve forecasting and resource allocation. Collaborating with cross-functional teams to integrate real-time analytics solutions into salesforce tools, ensuring data-driven decision-making is actionable at scale.

Advisor - Data Science

2020 - 2022

Developed an automated Marketing Mix Modeling (MMM) pipeline, providing insights for 17 brands and \$500M+ in annual spend (2022 CIDO Award). Built predictive models improving HCP targeting by 20%+, increasing sales impact (2021 Colonel Award). Designed and analyzed \$80M in marketing experiments, uncovering optimizations leading to \$40M+ in revenue and cost savings. Created a scalable programming framework for reproducible analytics, now adopted company-wide. Led a 4-person team across US and India, driving advanced analytics adoption. Partnered with marketing leadership to optimize \$1B+ in commercial investments.

Duke University

North Carolina, USA

Lecturer 2018 - 2019
Tought Financial Faconometries, Buthon, and Matlah to 100 | MS and BhD students

Taught Financial Econometrics, Python, and Matlab to 100+ MS and PhD students. Developed modernized coursework integrating Python-based econometric modeling, improving practical skills and real-world application. Managed teaching assistants, ensuring smooth course delivery.

EDUCATION

PhD, Economics, Duke University, USA MS, Mathematics, IMPA, Brazil BS, Economics, Insper, Brazil

2015 - 2020

2012 - 2014

2008 - 2011