Rodrigo Hermont Ozon

Data Scientist and Econometrician · Quantitative Modeling, Forecasting & Generative AI · Python, R, SQL, PySpark, Azure/Databricks · Industry, Financial Markets & R&D

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Data scientist and econometrician: I build machine learning, deep learning, econometric, predictive and AI models — and put them into production. I recently delivered corporate chatbots and orchestration of agents and sub-agents at a health insurer, plus swarms of AI agents for marketing analytics at scale for consulting clients. In quantitative modeling, I built the contractual cost forecasting, with backtesting, that automated the budget process; contributed to the econometric model for commodity price forecasting, built from ~700 economic time series with a multicausal Bayesian approach for a trading desk; and delivered multi-objective cost optimization, recommender systems and causal modeling of NPS for large corporations. I support these models with production pipelines in the cloud — AWS and Azure — and on data platforms such as Databricks and Snowflake, under MLOps practices. Economist by training, MSc in Economic Development (UFPR) and final-year PhD candidate in Systems and Production Engineering (PUCPR).

SELECTED EXPERIENCE

MAR 2025 — PRESENT

CURITIBA, PR — REMOTE

Founder and Principal Consultant

OQUANT DATA SCIENCE CONSULTING

Own consultancy in data science, econometrics, forecasting, causal inference and AI. Project-based and remote engagements for clients in Brazil and abroad; active company (CNPJ), open to contract work.

- Deliver multi-objective cost optimization models and recommender systems in production for large corporations.
- Build and deploy swarms of AI agents and sub-agents for marketing analytics at scale — end-to-end agentic AI engineering.
- Develop prospective and causal predictive modeling to support strategic and operational decisions.
- Client portfolio includes Grupo Cogna Educacional, Grupo Fleury and Aurora Alimentos, across education, healthcare and the food industry.
- Support researchers on applied research, quantitative modeling and econometrics: PUCPR and UFPR in Brazil; Shanghai University (China), University of Porto (Portugal), Ohio University and University of Colorado Boulder (USA).

ECONOMETRICS • FORECASTING • CAUSAL INFERENCE • TIME SERIES • MACHINE LEARNING • RISK ANALYTICS • APPLIED AI • PYTHON • R

JAN 2026 — AUG 2026

CURITIBA, PR

Data Scientist

UNIMED DO ESTADO DO PARANÁ

Data science, analytics, BI and generative AI in the healthcare sector.

- Built time series forecasting models for contractual costs, with backtesting and model testing and selection, and fully automated the insurer's budget-building process.

- Contributed to generative AI initiatives: internal chatbots, multi-agent architectures, sub-agent workflows and automation of analytical routines.
- Monitored KPIs and performance analysis, and communicated findings to technical and non-technical stakeholders.

PYTHON • SQL • GENERATIVE AI • LLM • MULTI-AGENT ARCHITECTURE • CHATBOTS • PREDICTIVE MODELING • POWER BI • HEALTHCARE

JAN 2025 — APR 2025

CURITIBA, PR

Data Engineer Professional

VOLVO GROUP DIGITAL & IT

Data engineering and advanced analytics in an agile product team on the Azure stack.

- Joined agile teams to build digital solutions focused on business value, working with data scientists on advanced analytics and AI.
- Developed custom algorithms and predictive models, and mined data to support product development, sales and business strategy.
- Built data pipelines in SQL, Python and PySpark and managed cloud data systems (Azure, ADF, Databricks).
- Implemented MLOps practices and model performance monitoring.

AZURE • ADF • DATABRICKS • PYSPARK • SQL • PYTHON • MLOPS • DATA PIPELINES

OCT 2024 — DEC 2024

CURITIBA, PR

Data Science Area Coordinator

LABORATÓRIO DE INTELIGÊNCIA PÚBLICA E CIÊNCIA DE DADOS (LAB.PR — PARANÁ STATE PUBLIC INTELLIGENCE AND DATA SCIENCE LAB)

Coordination of the data science area at the state public intelligence laboratory.

- Coordinated LAB.PR operations across data science and artificial intelligence applied to public administration.
- Led the redesign of public documents and systems integration for higher-precision public policy.
- Ran technology skill development programmes and institutional partnerships.
- Promoted transparency and efficiency in public administration through advanced technology and data governance.

DATA SCIENCE • ARTIFICIAL INTELLIGENCE • DATA GOVERNANCE • PUBLIC POLICY • PROJECT MANAGEMENT

APR 2023 — OCT 2024

CURITIBA, PR

Data Science Consultant

CASE NEW HOLLAND (CNH INDUSTRIAL)

Data science consulting inside a development squad, from raw data to decision model.

- Built and trained machine learning and AI models on complex, heterogeneous data, including cleaning, deduplication and dataset construction.
- Applied algorithms, statistics, regression models, decision trees and neural networks, plus time series and image processing.
- Worked in a data lake environment (Hadoop ecosystem, Spark, Kafka) on Microsoft Azure, in Python and R.

PYTHON • R • MACHINE LEARNING • TIME SERIES • AZURE • DATA LAKE • SPARK • NEURAL NETWORKS

MAY 2021 — MAR 2023

CURITIBA, PR

Senior Advanced Analytics Analyst

BRF

Econometric modeling of commodity prices and support for BI and Analytics.

- Contributed to the predictive model for corn prices on the Chicago Board of Trade and B3, handling roughly 700 economic time series.
- Developed a multicausal Bayesian model to forecast price drivers, with inferential quality grounded in the microeconometrics literature.
- Managed support for BI and Analytics products, with data modeling, multiple databases, dashboards and reports for business areas.
- Ran consistency and accuracy testing and maintained the technical project documentation.

R • TIME SERIES • BAYESIAN MODELING • FORECASTING • COMMODITIES • CBOT • B3 • POWER BI • SQL

EDUCATION

2022-2027

PhD

Systems and Production Engineering

PONTIFICAL CATHOLIC UNIVERSITY OF PARANÁ (PUCPR)

in progress

2022

Technologist Degree

Data Science

CRUZEIRO DO SUL UNIVERSITY

2011

MSc

Economic Development

FEDERAL UNIVERSITY OF PARANÁ (UFPR)

2007

BSc

Economics

FEDERAL UNIVERSITY OF PARANÁ (UFPR)

2002

Teaching Degree

Mathematics

STATE UNIVERSITY OF PARANÁ (UNESPAR)

CERTIFICATIONS

2026 Software Development with Claude Code — agents and sub-agents DataCamp

2026 Building AI Agents with Snowflake DataCamp

2025 ETL and ELT in Python DataCamp

2025 Data-Driven Decision Making for Business DataCamp

2024 Machine Learning and Feature Engineering with PySpark DataCamp

2024 Introduction to Databricks DataCamp

2024 Software Engineering Principles in Python DataCamp

2024 Current Issues and Emerging Trends in Industrial and Systems Engineering Even3

2020-2021 Data Science Professional Certificate IBM / Coursera

2020 Econometrics: Methods and Applications Erasmus University Rotterdam

2020 Data Science Math Skills Duke University

2019 Financial Markets Yale University

2019 Applied Introductory Econometrics USP

Full list of certifications LinkedIn

DATA & ANALYTICS EXPERIENCE

MAY 2021 — JUL 2021

CURITIBA, PR

Researcher and Consultant

UNDP BRAZIL — UNITED NATIONS DEVELOPMENT PROGRAMME

Project BRA/18/024 — reducing violence against children and adolescents in Brazil.

- Extracted and automated data collection from official public sources through APIs, with scripts to systematise primary data.
- Built socioeconomic indicator dashboards and proposed a prioritisation plan for neighbourhoods and regions with the most critical crime and violence indicators.

R • APIS • AUTOMATED DATA COLLECTION • SOCIOECONOMIC INDICATORS • DASHBOARDS • PUBLIC POLICY

OCT 2019 — NOV 2019

CURITIBA, PR

Business Intelligence Consultant

KIE-TECKIE-TEC

Short engagement in BI and predictive modeling.

- Gathered requirements, proposed predictive models and ran advanced data analysis for the client's operation.

BI • PREDICTIVE MODELING • DATA ANALYSIS

JAN 2021 — MAR 2021

CURITIBA, PR

Senior BI Analyst

TECNOFIT

BI function and data-driven culture at a fitness-industry software company.

- Stood up the BI function from scratch: process mapping, data dictionary, workflows and a documented governance model.
- Automated extractions from the Hubspot CRM API and the Google Places API, plus SEO scripts using fitness-sector keywords.
- Computed market share from CAGED and RAIS microdata, backing the commercial reading of the business.

ETL • DATA GOVERNANCE • POWER BI • MARKET RESEARCH

OCT 2020 — DEC 2020

CURITIBA, PR

Senior Data Scientist

DEAL TECHNOLOGIES — RUMO LOGÍSTICA PROJECT

External consulting contract on one phase of Rumo Logística's Market Intelligence and Pricing program.

- Served as sole consultant on one phase of Rumo Logística's Market Intelligence and Pricing implementation, validating deliverables from two international consultancies.

- Audited data quality in PostgreSQL and reviewed pipelines and the data warehouse, flagging gaps that undermined model reliability.
- Built ETL pipelines pushing files to AWS S3 through an API, with documentation in Confluence, version control in BitBucket and reproducible RMarkdown reports.
- Ran price optimization and machine learning tests applied to rail freight operations.

PRICING • MARKET INTELLIGENCE • POSTGRESQL • AWS S3 • ETL • RMARKDOWN • BITBUCKET • CONFLUENCE • R

JAN 2019 — OCT 2020

REMOTE

Freelance Data Scientist

UPWORK.COM

On-demand remote projects in data science and econometrics for international clients.

- Delivered remote data science and econometrics projects for international clients on the Upwork platform.
- Produced and typeset scientific documents in LaTeX integrated with R for researchers and companies.

R • LATEX • ECONOMETRICS • REMOTE WORK

MAY 2019 — NOV 2019

CURITIBA, PR

Senior Statistical Analyst

GRUPO BITCOIN BANCO

Strategic metrics and data intelligence for the executive team of a crypto-asset group.

- Created a strategic metrics system with real-time KPIs per business area, speeding up the decision cycle.
- Built strategic indicators, BI, visualizations and statistical and econometric analysis from internal and public data.
- Tracked market dynamics on a regular cadence, feeding forward-looking scenarios and benchmarks used to spot investment opportunities.

BI • STATISTICAL ANALYSIS • ECONOMETRICS • DATA VISUALIZATION • DATA GOVERNANCE

TEACHING

FEB 2025 — JUL 2026

CURITIBA, PR

Lecturer

FAE BUSINESS SCHOOL

Undergraduate program in Data Science for Business and Financial Markets.

- Taught Econometrics in the Economics degree: regression diagnostics, causal inference, panel and time-series methods applied to markets and public policy.
- Taught Big Data for Finance Project, Computational Programming and Risk Management, with modeling in Python, R and Excel.
- Taught Project Appraisal and Investment Analysis: capital budgeting, discounted cash flow, NPV, IRR, payback, sensitivity and scenario analysis, Monte Carlo simulation and real options.
- Bridge theory and practice in quantitative methods for financial risk assessment and mitigation.

PYTHON • R • EXCEL • BIG DATA • RISK MANAGEMENT • BUSINESS INTELLIGENCE

AUG 2024 — PRESENT

CURITIBA, PR

Graduate Lecturer

ESIC INTERNATIONAL

Investments module of the Executive MBA in Business Management.

- Teach a 12-hour Investments module in the Executive MBA in Business Management.
- Cover the financial dimension of investments, economic appraisal criteria, risk management, inflation effects and the fiscal environment.
- Equip executives to analyze investment projects and decide based on formal economic criteria.

INVESTMENT APPRAISAL • RISK MANAGEMENT • CORPORATE FINANCE

MAY 2020 — OCT 2020

CURITIBA, PR

Online Instructor

FINTED CURSOS DE MERCADO FINANCEIRO (FINANCIAL MARKETS TRAINING)

Online courses preparing candidates for Brazilian financial-market certifications (CPA/ANBIMA).

- Taught CPA/ANBIMA certification prep courses to banking and financial services professionals.
- Produced short video lessons of up to 10 minutes on financial mathematics, monetary and financial theory, banking, financial markets and investment analysis.

FINANCIAL MATHEMATICS • FINANCIAL MARKETS • INVESTMENT ANALYSIS • ONLINE TEACHING

JAN 2009 — DEC 2011

ARAUCÁRIA, PR

Lecturer and Research Coordinator

INSTITUTO INESUL DE PESQUISAS E CIÊNCIAS

BA in Business Administration; coordination of research and graduate programs.

- Taught Financial Mathematics, Financial Management and Statistical Process Control in the Business Administration degree.
- Led research and graduate studies coordination from Jul 2009 to Mar 2010, while also teaching Business Computing and Industrial Performance Indicators.

APPLIED STATISTICS • FINANCIAL MATHEMATICS • ACADEMIC COORDINATION

JAN 2011 — DEC 2011

CURITIBA, PR

Graduate Lecturer

FACULDADE DE EDUCAÇÃO SUPERIOR DO ESTADO DO PARANÁ (FESP/PR)

Graduate program in Project Management for working executives.

- Taught the Project Integration course in the graduate program in Project Management, anchored in PMBOK best practices.
- Led executive cohorts through the trade-offs between scope, schedule and cost on live projects.

PROJECT MANAGEMENT • PMBOK

JAN 2009 — DEC 2010

CURITIBA, PR

Lecturer

UNIVERSIDADE POSITIVO (POSITIVO UNIVERSITY)

Undergraduate program in Economics and the Business School.

- Taught Financial Markets and Monetary and Financial Economics in the Economics degree.
- Delivered Quantitative Methods (Financial Mathematics) to first-year Business School cohorts.

MONETARY ECONOMICS • FINANCIAL MARKETS • QUANTITATIVE METHODS

ECONOMICS & MANAGEMENT EXPERIENCE

FEB 2020 — MAR 2020

CURITIBA, PR

Market Intelligence Analyst

ALCAST DO BRASIL

Project contract to establish the market intelligence function at an aluminum manufacturer.

- Led the project that established the company's market intelligence function.
- Mapped and analyzed target segments in market studies, sharpening the company's commercial approach.

MARKET INTELLIGENCE • SECTOR STUDIES • DATA ANALYSIS

OCT 2012 — NOV 2018

CURITIBA, PR

Mid-Level Economic Analyst

FEDERAÇÃO DAS INDÚSTRIAS DO ESTADO DO PARANÁ (FIEP — PARANÁ STATE INDUSTRY FEDERATION)

Economic advisory to industry employers' unions and to FIEP's Economics Department.

- Advised Paraná's leading industry employers' unions with value-chain economic analysis that framed collective bargaining in those sectors.
- Built Power BI visualizations of secondary economic data, cutting collection and wrangling time substantially.
- Raised R$ 300k in sponsorship for the Furniture Industry Congress and served as a reviewer and evaluator for the SENAI/SESI innovation call for proposals.

POWER BI • SECTOR ANALYSIS • INDUSTRIAL ECONOMICS • FUNDRAISING

JAN 2008 — OCT 2012

CURITIBA, PR

Economist and Project Coordinator

INSTITUTO BRASILEIRO DA QUALIDADE E PRODUTIVIDADE (IBQP)

Management of technology innovation projects and fundraising for applied research.

- Led the Development Index for Micro and Small Enterprises (ID-MPE) project, commissioned by Sebrae's national office in partnership with UFPR researchers.
- Built a municipal-level composite index to diagnose and monitor the institutional environment, feeding the Local Development Program of Brazil's Small Business Act.
- Raised funding for new projects from UNESCO, UNDP/UN and CNPq, and wrote the "Sucesso nos Negócios" business column in the newspaper O Dia (Rio de Janeiro).

PROJECT MANAGEMENT • COMPOSITE INDICATORS • FUNDRAISING • APPLIED ECONOMICS

2024 — PRESENT

REMOTE

Peer Reviewer

APPLIED SOFT COMPUTING (ELSEVIER) · PRINCIPIA JOURNAL (UFJF)

Peer review for an international applied computing journal and a Brazilian scientific journal.

- Review submissions for Applied Soft Computing (Elsevier), with a recognised-reviewer certificate.
- Review submissions for PRINCIPIA Journal, Federal University of Juiz de Fora.

PEER REVIEW • SOFT COMPUTING • OPTIMIZATION • ECONOMETRICS

2022 — PRESENT

CURITIBA, PR

Doctoral Researcher and Undergraduate Research Advisor

PONTIFICAL CATHOLIC UNIVERSITY OF PARANÁ (PUCPR) — SYSTEMS AND PRODUCTION ENGINEERING



Applied time series, financial and Bayesian econometrics, multi-objective portfolio optimization and extremal event modeling.

- Published at SBPO, CBA, ICPR Americas, EBFin and CONBREPRO on commodity price forecasting, multi-objective portfolio optimization (NSGA-II) and Bayesian GAMLSS and MSGARCH models.
- Doctoral finalist at XI ENPPEPRO (2024), the Brazilian national meeting of production engineering graduate programmes.
- Advised a completed PIBIC/PIBIC Jr. research project (2024–2025) on financial modeling with AI and econometrics for agricultural commodity portfolio optimization.
- Served on PUCPR's Scientific Advisory Committee (2023 and 2024–2025).

GAMLSS • MSGARCH • GARCH • CNN+LSTM • SURVIVAL ANALYSIS • MULTI-OBJECTIVE OPTIMIZATION • NSGA-II • BAYESIAN ECONOMETRICS • R

PUBLICATIONS AND ACADEMIC PROFILES

Lattes CV — full publication list CNPq

2024 Comparative Analysis of Fuzzy Regression Models and Multicriteria Decision-Making for Commodity Market Forecasting LVI SBPO, Fortaleza

2024 Predictive Maintenance Strategies in Agriculture Using Survival Analysis XXV Brazilian Congress of Automatics (CBA), Rio de Janeiro

2024 Efficiency and Efficacy Comparison between NSGA-II and Differential Evolution in Multi-Objective Portfolio Optimization ICPR Americas 2024, Ohio University

2024 Enhancing Grain Portfolio Risk Management with GAMLSS and MSGARCH 24th Brazilian Finance Meeting (EBFin)

2024 Integrating GAMLSS and Bayesian MSGARCH Models for Enhanced Forecasting of Commodity Price Returns 1st SouthStat Meeting, UFPR

2024 Ablation Study of a CNN+LSTM Architecture for Time Series Forecasting of Corn Price Returns PUCPR

2024 Impact of the Russia-Ukraine War on Corn Prices, Returns and Volatility: A Quasi-Experimental Approach PUCPR

2023 Portfolio Optimization with GARCH Models Using Multiple Time Windows for Pareto Frontiers APREPRO/CONBRE-PRO

2011 MSc dissertation — Economic Development UFPR Digital Archive

2008 Volatility Modeling in Financial Time Series Statistics and Geoinformation Lab / UFPR

ORCID profile ORCID

PIBIC AgroFinance research project — project site PUCPR

Course materials — Data Science and Finance FAE Business School

TALKS

MAY 2023 Econometrics and Causality: Commodity Portfolio Selection Under Uncertainty Grupo CiDAMO, Curitiba (in Portuguese)

MAY 2020 Entrepreneurship in a Downturn and Professional Excellence Condor Connect live session, Curitiba (in Portuguese)

LANGUAGES

Portuguese (native) · English: proficiency approved in the PhD language exam (PUCPR); fluent reading, solid writing, working conversation and listening; currently in GMAT and TOEFL preparation at Talken English School, Curitiba (Intermediate II) · Spanish (reading)