

Guilherme Jacob

Data Analyst, with background in Law and Economics

contact

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languages

Portuguese - native
English - fluent
French - basic

softwares

R, Python, SAS,
Stata, SPSS,
X-12-ARIMA, CPro,
SQL, LaTeX & Office

expertise

data analysis,
complex surveys,
statistical programming,
econometrics,
mathematical modeling,
monitoring and evaluation,
public policy,
poverty and inequality,
rights-based approach.

education

- 2019–Current **M.Sc. in Demography** National School of Statistical Sciences (ENCE)
Graduation Program in Population, Territory and Public Statistics.
ENCE is a division within the Brazilian Institute for Geography and Statistics (IBGE).
- 2014 **Refresher Course in Economic Theory** Rio de Janeiro Federal University (UFRJ)
Refresher course in microeconomics, macroeconomics, mathematics, statistics, econometrics and Brazilian economy.
- 2009–2013 **B.Sc. in Economics** Amazonas Federal University (UFAM)
Brazilian Economic Model in the 2000s: an economic analysis from Keynes and Furtado
My bachelor thesis proposed a new formula for the Mundell-Fleming model, including a hypothesis on the relationship between consumption, imports and inequality.
Overall Score: 8.39 out of 10.0.
- 2008–2013 **B.A. in Law** Faculdade Martha Falcão DeVry (FMF)
Socioeconomic Etiology of Crime
My bachelor thesis studied the relationship of poverty, inequality, and education as causative factors of criminality, combining the analysis of criminological theories and empirical testing of statistical models.
Overall Score: 7.98 out of 10.0.

professional experiences

- 2018–2019 **United Nations Children's Fund (UNICEF)** Brasília, Federal District
Consultant
Analysis of school exclusion and overage students using administrative records and complex survey data.
- 2015–2017 **United Nations Children's Fund (UNICEF)** Brasília, Federal District
UNV Monitoring and Evaluation Officer
Monitoring and evaluation of public policies, focusing on children and adolescents.
Analysis of health, education, violence and poverty data from public records and complex survey samples.
Also working on innovative initiatives using mobility data from mobile phones, information poverty measurement, and supporting Zika virus epidemiological data analysis.
- 2015–2015 **United Nations Children's Fund (UNICEF)** Manaus, Amazonas
Consultant
Review and consolidation of social statistics about children and adolescents for the SITAN Report.

2014–2015	Oswaldo Cruz Foundation (Fiocruz) / Ministry of Health / Brazil <i>Consultant</i> Consultancy on data collection and analysis of social statistics for the Situation Analysis of children in the Brazilian Amazon, combining equity focus and the rights-based approach. This diagnostic aims to promote more inclusive policies for the most disadvantaged children.	Manaus, Amazonas
2014–2014	United Nations Children's Fund (UNICEF) <i>Consultant</i> Collect data and support the analysis of the social and economic statistics of 50 municipalities with the worst living conditions in the Brazilian Amazon. Special focus on children and adolescents.	Manaus, Amazonas
2014	Amazonas Sustentável Foundation <i>Consultant</i> Questionnaire data analysis of Mathematics and Portuguese test performance of students in riverside schools of 8 municipalities of the Amazonas State.	Manaus, Amazonas
2014	Norte MC Consultores Ltda. <i>Consultant</i> Seasonal adjustment of industrial production by technological intensity data from January, 2002 to December, 2013. Development of programming routines for the X-12-ARIMA program. Results used in "Carta IEDI n.619", publication of the Institute of Studies for Industrial Development (IEDI).	Manaus, Amazonas
2014	National Council for Scientific and Technological Development (CNPq) <i>Consultant</i> <i>Funding Institutions:</i> National Council for Scientific and Technological Development (CNPq), Amazonas State Research Support Foundation (FAPEAM) and United Nations Children's Fund (UNICEF). Development of data entry application for mobile devices and database set up, using CSPro. Technical support.	Tabatinga, Amazonas and Manaus, Amazonas
2013–2014	United Nations Children's Fund (UNICEF) <i>Consultant</i> Collect data and support cluster analysis of Brazilian Amazon municipalities. Analysis of socioeconomic indicators. This task was part of UNICEF "Selo Município Aprovado" (Municipal Seal of Approval).	Manaus, Amazonas
2013	Norte MC Consultores Ltda. <i>Consultant</i> Seasonal adjustment of industrial production by technological intensity data from January, 2002 to August, 2013. Development of programming routines for the X-12-ARIMA program.	Manaus, Amazonas

academic experiences

2015–2015	Technical Support Research conducted in partnership between UFAM and FAPEAM Technical support in the research project "Wealth Measures for Amazonas". Analysis of Amazonas' inequality and poverty indices, using the National Household Survey (PNAD). Production of statistical algorithms for analyzing data from household surveys under complex sample design.	Amazonas State Research Support Foundation (FAPEAM)
2013	Public Tender – Call Notice n.18/2013 <i>Subject:</i> Quantitative Methods in Economics <i>Written Test Result:</i> 5.36 <i>Ranking:</i> 2nd place.	Amazonas Federal University

2012–2013	Research Assistant	Institute of Applied Economic Research (IPEA)
	Research conducted in partnership between UFAM and IPEA Extraction and analysis of income and consumption micro data from the Family Budget Survey (2002-2003). Also, author of the methodological report for IPEA.	
2012	Volunteer Teaching Assistant in International Economics	UFAM
2011–2012	Scientific Initiation Fellow (PIBIC)	UFAM/CNPq
	<i>Details:</i> Questionnaire application and data analysis about the profile of the Economics students in UFAM.	
2011	Fellow Teaching Assistant in Microeconomic Theory I	UFAM
2010	Fellow Teaching Assistant in Introduction to Economics: Macroeconomics	UFAM

technical and scientific production

2018	UNICEF Brasil Publication	Panorama do Atraso Escolar
	Statistical report about overage students in basic education.	
2017	Guest Reviewer in Scientific Journal	Journal of Official Statistics
	Special edition for the "New Techniques and Technologies for Statistics" Conference (NTTS), with the Collaboration in Research and Methodology for Official Statistics (CROS/EUROSTAT). Editorial Collaborators, 2017, 33(4), pp. 1093-1099.	
2017	Co-author of Book Chapter	Análise de dados utilizando as libraries survey e convey do R
	Chapter in "Statistics With R: Inovação no Mercado Profissional", a book composed of articles presented at the <i>International Seminar of Statistics with R</i> at the Fluminense Federal University.	
2017	UNICEF Brazil Publication	Boas Práticas: água e saneamento nas escolas do Semiárido
	Report on good practices on WASH (water and sanitation) for schools in the Brazilian Semi-arid.	
2016	UNICEF Brazil Working Paper	Statistical inference for poverty and inequality measures using R "convey" package
	Author. Part of UNICEF Monitoring and Evaluation Team capacity building.	
2016	R package	convey: Income concentration analysis with complex survey samples
	Co-author. Focus on inequality measurement, subgroup decomposition and variance estimation algorithms.	
2014	Article in Scientific Journal	Law, Economics and Criminology: on a method for public policy formulation
	Co-author. Article published in "Revista de Produção Acadêmico-Científica do Ciesa", Ano 1, v. 1, n. 1, jul.-dec., 2014.	
2014	Technical Report	Employment, income and indigenous economy in Tabatinga
	Author. Report for UNICEF, based on the Indigenous Population Census of Tabatinga.	
2014	Translation to Portuguese	NORTH, Douglass. <i>An outline of the process of economic change</i> . Chapters I-V.
	Unpublished Work.	

2013	Handout	Econometrics I
	Co-author. Handout used to support "Econometrics I" undergraduate course.	
2011	Presentation	Profile of UFAM's Economics Students and their identification with the course
	<i>Banner presentation</i> on II UFAM's Economics Course Week.	

training courses

2017	Results-Based Management (RBM)	UNICEF Agora Platform
2017	United Nations Human Rights Responsibilities	UNICEF Agora Platform
2016	Immunization Coverage Data	UNICEF Agora Platform
2016	Introduction to Ethics in Evidence Generation	UNICEF Agora Platform
2016	Gender Equality UN Coherence and You	UNICEF Agora Platform
2016	The Data Scientist's Toolbox	Coursera
2015	Ethics and Integrity at UNICEF	UNICEF Agora Platform

interests

Data analysis, statistical programming, quantitative methods, public policy, monitoring and evaluation, economic development, human rights, rights-based approach, Law and Economics.