Daniel Sánchez
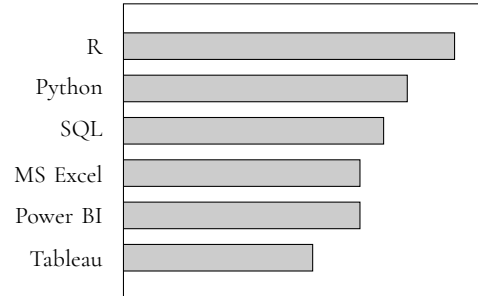
DATA ANALYTICS · CAUSAL INFERENCE · APPLED FINANCE

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🐦 Twitter 🌐 Personal Website 📊 Project Portfolio ⭘ GitHub ® RPubs

SUMMARY

· Data analyst and applied researcher with interests in causal inference, reproducible data analytics and financial econometrics.
· Advanced skills using R, Python, SQL and Power BI for transformation, analytics and visualization pipelines.
· **Languages:** English (advanced, TOEFL 119/120), Spanish (native), French (basic).
· Project portfolio hosted on personal website.

EDUCATION

Aug. 2022 – Apr. 2024	**Master of Arts** in Economics	SIMON FRASER UNIVERSITY, BURNABY, BC, CANADA

Awarded full funding among 100+ applicants. GPA 3.89/4.33.

Jan. 2017 – May. 2022	**Bachelor of Arts** in Economics, Finance	UNIVERSIDAD SAN FRANCISCO DE QUITO, ECUADOR

Double major in Economics & Finance. GPA: 3.82/4.00 (EC) & 3.81/4.00 (FI). Attended **Michigan State University** for one exchange year (2019-2020) **on full funding** with GPA. 3.9/4.0.

SELECT INDUSTRY EXPERIENCE

Aug. 2022 - Present	**Teaching Assistant**	SIMON FRASER UNIVERSITY, BURNABY, BC, CANADA

· TA for Economic Development (Spring 2024 & 2023), Principles of Microeconomics (Summer 2023) and Money and Banking (Fall 2022) as a part of a full funding package in SFU MA program.
· Preparing class seminars, creating and grading assignments/exams for 200+ students per semester and holding one-hour tutorials to 20+ students 4+ times a week.

Jun. - Dec. 2023	**Junior Data Analyst**	NATURAL RESOURCES CANADA, OTTAWA, CANADA

· Co-op student at NRCan's Clean Technology Economic Analysis Unit, supporting the producing data analytics of the Canadian clean technology sector for the implementation of business-oriented policy.
· Produced data analysis, reporting and visualization pipelines with R, Python and Power Query/Mashup, following industry standards for code formatting, connecting to APIs for data access using *statcanR*, `wbgapi`, Bloomberg, PitchBook, S&P Capital IQ, among others.
· Developed 5+ Power BI and Tableau dashboards. Documented programs, scripts and dashboards for future use, focusing on reproducibility and best coding practices.
· Created and presented reports to top organization officials, implementing dynamic updating using R and Python pipelines with RMarkdown, Quarto and Jupyter. using R and Python pipelines with RMarkdown, Quarto and Jupyter.

May 2022 - April 2023	**Data Analyst**	MILMOH, S.L., VALENCIA, SPAIN

· Transformed, analyzed and visualized data with Power BI, Tableau and R, creating 20+ dashboards and 50+ analytical/reporting pipelines for remote-based Milmoh.
· Managed and structured data models with PostgreSQL to deploy and maintain assets in Power BI, Tableau and R, implementing coding best practices.
·Reviewing and improving prior company assets in SQL and Power BI, validating existing methods with evolving expectations and new methodologies. Developed periodic reports, product documentation and result presentations in **a client-facing team.**

Skills

· Multipurpose scripting: **R**(3+years): base, *tidyverse*, *infer*, *ranger*, *caret*, *survey*, *tidymodels*, *tidytext*, etc. **Python**(1 year): `pandas`, `numpy`, `polars`, `scipy`, `xgboost`, etc.
· Data Science/Econometrics: **supervised learning** (regression (OLS), classification, decision trees, random forests, GAMs, GMM, GLS, gradient boosting), **unsupervised learning** (clustering, PCA, k-means), **statistics** (hypothesis testing, ANOVA, experimental design, bootstrapping, sampling, mixed models), **causal modeling** (A/B testing/randomized trials, IV/TSLS, difference-in-differences, regression discontinuity, matching, synthetic control, etc.)
· Dashboarding & Visualization: **Power BI** (1 year), **Tableau** (1 year), *shiny/flexdashboard*, *ggplot2*, *plotly*, *dygraphs*, *highcharter*, `matplotlib`, `seaborn`.
· Data Management & Manipulation: **PostgreSQL & SQL Server (1 year)**, Power Query, Mashup, *dplyr*, *tidyr*, *data.table*, *zoo*, *lubridate*, *stringr*, *XLConnect*, *openxlsx*, `pandas`, `polars`,
· Document Markup: LaTeX (3+ years), Quarto, Markdown, RMarkdown, *knitr*, *sweave*.
· Others: Git, GitHub, Unix, MS Office, Stata, Julia, SAS, Minitab, SPSS, MATLAB, VBA, *blogdown*. APIs with *selenium*, *quantmod*, *wbstats*, *Quandl*, *spotifyr*, *geniusr*, *lastfmR*, etc.

Publications

Peer-reviewed

1. Sánchez Pazmiño, D. (2023). Honesty by Convenience: Corruption Tolerance in Ecuador. In *The Philosophy, Politics and Economics Review*. https://pressbooks.lib.vt.edu/app/uploads/sites/47/2023/03/PPER-Volume-2-2023.pdf.

2. Sánchez-Pazmiño, D.H. (2022). Immunizing the Economy: A Causality Discussion on Vaccines and Economic Recovery[1]. In *X-Pedientes Económicos*. https://daniel-ec.netlify.app/files/research/immunizing-the-econ.pdf.

Media

1. Quijano, A. & **Sánchez, D.** (2023). Homosexuality: what do Ecuadorians think about it? (In Spanish). ISSN 2953-6456.

2. Marchán, A. & **Sánchez, D.** (2023). Three problems for the quantitative analysis of femicides in Ecuador (In Spanish). ISSN 2953-6456.

3. Sánchez, D. (2022). A quantitative perspective on the Ecuadorian protests (In Spanish). ISSN 2953-6456.

See also self-hosted publications in English and Spanish in personal website, constructed using R & Quarto.

Additional Education

Oct. 2023	Understanding and Visualizing Data with Python	Coursera (University of Michigan)
Oct. 2023	Python Fundamentals (skill track)	DataCamp
Sept. 2023	Data Scientist Professional with R (career track)	DataCamp
Mar. 2023	Introduction to Stata 15	LinkedIn Learning
Nov. 2022	Simon Fraser University Data Fellowships: AI Essentials	SFU Big Data Hub
May 2022	Intermediate SQL	DataCamp
May 2022	Power BI & Tableau Fundamentals (skill tracks)	DataCamp

Research Affiliations

Jun. 2022 - present	Research Associate	Ecuadorian Research Development Lab, Ecuador

· Co-authorship of quantitative research papers with organization members.
· Established the first DataCamp Donates partnership in Ecuador in 2022. DC Donates provides free data analysis education to disadvantaged individuals and communities through partners.
· Reviewer and maintainer for the organization's blog-type website El Quantificador, developed with R using *blogdown* & Hugo.

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[1] See this link for original journal publication.