Maria C. Sanchez Linares

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EDUCATION

Macalester College, St. Paul, MN | **B.A. in Data Science**, Minor in Economics
GPA: 3.51/4.00 | Honors: Kofi Annan Scholarship for Academic Excellence
Relevant Coursework: Intermediate Data Science, Machine Learning, Statistical Modeling, Database Management Systems, Intermediate Microeconomics & Macroeconomics, Environmental Economic Policy, Econometrics.

RELEVANT EXPERIENCE

Education Analytics Inc. | *Assistant Research Analyst II* — June 2024 – July 2025

- Led a 3-month independent research project on teacher turnover rates across 2,276 Wisconsin public schools, utilizing panel data to calculate metrics, perform a trend analysis, and generate summary statistics to identify underlying causes and their impact on student outcomes.
- Collaborated with the analyst team on ad-hoc tasks, including data cleaning, quality control and investigative analysis, to develop Student Performance Measure (SPM) ratings for Pasco County using district assessments and state value-added models.
- Queried large-scale datasets using SQL in Snowflake to analyze links between socio-emotional learning goals and academic outcomes across NewSchools Venture Fund's school portfolio; developed 4 visualizations for their annual presentation.
- Collected and processed enrollment and demographic data on Washington, D.C. public schools to develop metrics informing improvement and investment decisions for the Michael & Susan Dell Foundation.

Macalester College | *Undergraduate Researcher (Capstone Project)* — September 2024 — December 2024

- Implemented a topic modeling analysis applying Latent Dirichlet Allocation (LDA) in R to classify articles by theme, and performed a 3-year time-series analysis to track topic prominence and identify key narratives in Venezuela–Colombia media discourse.
- Extracted and pre-processed 5,000+ newspaper articles using the `pdftools` package and natural language processing (NLP) tools such as lemmatization and tokenization in R.
- Performed 4 fitness tests —Griffiths2004, Deveaud2014, CaoJuan2009, Arun2010— to determine the optimal number of topics (k=6) for the LDA model.

PREDOC & Opportunity Insights | *Research Fellow* — June 2023 – August 2023

- Conducted a research project on social mobility under the mentorship of Prof. Bruich from Harvard's Department of Economics, engaging in coursework and weekly advisory meetings.
- Designed and implemented an empirical model to analyze US-wide tax revenue and census tract-level demographic data, leveraging STATA for data wrangling and statistical modeling.
- Co-authored a research paper, interpreting linear regression results and summarizing key findings.
- Selected as one of the 5 best students out of 50 to present findings at a conference hosted by the Federal Reserve Board of Governors.

UVA School of Data Science, Data Justice Academy | *Research Fellow* — May 2023 – August 2023

- Analyzed different data collection methods and developed a comprehensive literature review on the invisibility and misrepresentation of transgender people in official health statistics.
- Employed R tools to curate a list of all federally supported survey data and designed a set of visualizations displaying the proportion of surveys collecting specific information across different SOGI areas.
- Contributed research findings to a report being developed by the UVA Center for Global Health Equity.

Starr Hill Pathways | *Student Mentor* — June 2023 – July 2023

- Taught Intro to Sports Analytics workshops to 30 middle schoolers at a STEM career exploration program aimed at expanding college pathways for students from underrepresented backgrounds.
- Expanded the program's curriculum to incorporate the achievements and perspectives of female athletes, enriching the students' educational experience through the design of a new workshop.

SKILLS

- **Languages**: Spanish (native speaker), English (fluent).
- **Programming Languages:** R, Python, Java, Stata, SQL, SPSS, LaTeX.
- **Software & Tools:** Microsoft Office Suite, Google Suite, Tableau, Plotly, Git, Snowflake, Preset, VS Code.