ANDRÉS FELIPE CAMACHO

+1 (773) 886-5961 | af.camacho.b9@gmail.com | LinkedIn | anfelipecb.github.io

EDUCATION

The University of Chicago   Chicago, IL
Master of Science in Computational Analysis and Public Policy   June 2026 (Expected)
Relevant Coursework: Advanced Machine Learning, DevOps, Computer Science with Applications, Cloud Computing, AI Agents

Universidad de los Andes   Bogotá, Colombia
Master of Science in Economics   October 2017

Universidad de los Andes   Bogotá, Colombia
Bachelor of Engineering in Industrial Engineering   July 2018
Bachelor of Arts in Economics   October 2015

SKILLS

Technical Languages: Python, R, SQL. **ML & NLP**: PyTorch, Hugging Face Transformers, scikit-learn. **Data & Vis.**: Polars, ChromaDB, D3, Vega-Altair, folium, KeplerGL, Maplibre. **Software**: AWS CLI, Google Earth Engine, Stata, QGIS, ArcGIS, Linux
Languages: English (IELTS 8/9), Spanish (Native)

PROFESSIONAL EXPERIENCE

Mansueto Institute for Urban Innovation   Chicago, IL
Data Science Fellow – Local Data Journalism Initiative   June 2025 – August 2025
- Designed and implemented an end-to-end data pipeline to process 27,000+ scanned documents, leveraging OCR (Tesseract) with LLM-based named entity recognition (NER) in Python to extract and classify people, locations, and events
- Built and analyzed a structured database using Polars for efficient data wrangling and Vega-Altair for exploratory visualizations, contributing to five investigative journalism pieces on underreported incidents in the Illinois prison system

World Bank   Washington, D.C.
Senior Spatial Data Consultant – Human Development (GGHVP) Unit   May 2024 – September 2024
- Built a geospatial data integration pipeline to merge 250+ GB of high-resolution raster and longitudinal census data across 20+ countries, enabling neighborhood-level human capital analysis for the Human Capital Report
- Standardized and harmonized 15+ global databases (4.800 data points), designing a robust data schema that defined the research framework
- Architected interactive spatial analytics tools using Python and ArcGIS to identify neighborhood-level trends across 10 countries, facilitating lead researchers in drawing high-resolution spatial comparisons

Inter-American Development Bank   Bogotá, Colombia
Research Data Scientist - Causal Inference   May 2023 – September 2024
- Applied advanced causal inference and econometric modeling to evaluate the impacts of climate change on child development, as well as gender disparities in credit access, designing robust identification strategies for 3 peer-reviewed research papers.
- Developed automated high-resolution satellite imagery pipelines to process 10 years of global temporal data (9km x 9km resolution), performing spatial-temporal joins with national surveys to create causal models and estimations for 2 research papers

Colombian Institute for the Evaluation of Education   Bogotá, Colombia
Lead Data Advisor   October 2022 – January 2024
- Spearheaded the design and deployment of the institute's Analytics and Innovation Center, establishing a data-driven decision-making framework that bridged evaluation data to stakeholders across the national education system
- Led the design and deployment of scalable data pipelines in AWS, delivering 5 dashboards, 2 applications, and 4 relational databases, managing 20M+ student assessment records

Policy and Strategy Office, Office of the Attorney General of Colombia   Bogotá, Colombia
Data Scientist   October 2018 – October 2022
- Developed an ML-based predictive model (XGBoost) to support prosecutors' pretrial detention decisions, achieving a 30% improvement in prediction accuracy during a pilot evaluation, while reducing unnecessary detentions
- Built an ensemble model using bagging in R to predict case outcomes, automating reporting workflows on large judicial databases, and optimizing caseload
- Designed and applied causal inference methods (DiD, matching) for 5 public policy evaluations and 10 policy memos on domestic violence, protection of social leaders, ex-combatant reintegration, and juvenile crime

CEDE & CESED Research Centers, Universidad de los Andes   Bogotá, Colombia
Research Assistant   January 2013 – September 2018
- Led spatial analysis, data management, and econometric modeling for 5 research projects using Stata and ArcGIS, supporting 5 research documents with impact evaluation models and policy recommendations on education, crime, incarceration and recidivism
- Calculated the economic efficiency of 280 Colombian higher education institutions using SFA and DEA models, informing the Ministry of Education policies on outcomes efficiency, and elaboration of a book summarizing findings

TEACHING EXPERIENCE

University of Chicago   Chicago, IL
Teaching Assistant: Data Science Clinic, Computer Science with Applications I and II   September 2025 – Present
- Mentored data science teams on the development and evaluation of computer vision pipelines for organoid imaging and ML metabolite models; advised a spatial analytics project on Chicago housing and rental prices
- Mentored students in software engineering, including code quality, algorithmic efficiency, data structures, and testing using Python

Harris Tutor: Python, Stata, R   January 2025 – May 2025

Economics Department, Universidad de los Andes   Bogotá, Colombia
Founder, Spatial Data Analysis Workshop in ArcGIS   January 2016 – July 2024
Lecturer, Spatial Data Analysis and Applications in Python   July 2022 – July 2024
Teaching Assistant   January 2016 – May 2024
- Graduate (Ms.): Crime Economics, Micro-econometrics, Impact Evaluation, Data Analysis Techniques, Quantitative Methods
- Undergraduate: Introductory and Intermediate Econometrics

AWARDS AND ACKNOWLEDGEMENTS

- Finalist, 7th MIT Policy Hackathon, recognized for outstanding performance in the Criminal Justice Challenge (2024)
- Recipient, Full Scholarship for a B.A in Economics, to the highest scores on the National Standardized Test in Colombia (2011)

PUBLICATIONS

- Cuartas, J., & **Camacho, A**. (2025). High temperatures and violent child punishment at home: Evidence from six countries. *Psychology of Violence, 15*(6), 670–681. Available here
- Cuartas, J., Balza, L. H., **Camacho, A.,** & Gómez-Parra, N. (2025). Ambient Heat and Early Childhood Development: A Cross-National Analysis. *Journal of Child Psychology and Psychiatry.* Available here
- Ham, A., Maldonado, D., Weintraub, M., **Camacho, A**., Gualtero, D. (2021). Reducing Alcohol-Related Violence with Bartenders: A Behavioral Field Experiment. *Journal of Policy Analysis and Management*. Available here
- **Camacho, A**. (2017). Forced Migration Effects on Trust and Attitudes Toward Immigrants in Destination Countries: Evidence from the Refugee Crisis in Europe. *CEDE Document N° 50-2017*. Available here
- Working paper: Using Artificial Intelligence in the Request of Pretrial Measures: approaching the Uncertainty in Recidivism Risk (With Daniel Mejía). The latest version is available here