

ANDRÉS FELIPE CAMACHO

+1 (773) 886-5961 | af.camacho.b9@gmail.com | [LinkedIn](#) | [anfelipecb.github.io](https://github.com/anfelipecb)

EDUCATION

The University of Chicago Master of Science in Computational Analysis and Public Policy Relevant Coursework: Advanced Machine Learning, DevOps, Computer Science with Applications, Cloud Computing, AI Agents	Chicago, IL June 2026 (Expected)
Universidad de los Andes Master of Science in Economics	Bogotá, Colombia October 2017
Universidad de los Andes Bachelor of Engineering in Industrial Engineering Bachelor of Arts in Economics	Bogotá, Colombia July 2018 October 2015

SKILLS

Technical Languages: Python, R, SQL. **ML & NLP:** PyTorch, Hugging Face Transformers, scikit-learn, XGBoost, Anthropic SDK.
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 <i>Data Science Fellow – Local Data Journalism Initiative</i>	Chicago, IL June 2025 – August 2025
<ul style="list-style-type: none">Designed and implemented an end-to-end data pipeline to process 27,000+ scanned documents, combining OCR (Tesseract) with Hugging Face transformer-based named entity recognition (NER) in Python to extract and classify people, locations, and eventsBuilt 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 <i>Senior Spatial Data Consultant – Human Development (GGHVP) Unit</i>	Washington, D.C. May 2024 – September 2024
<ul style="list-style-type: none">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 ReportStandardized and harmonized 15+ global databases (4,800 data points), designing a robust data schema that defined the research frameworkArchitected 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 <i>Research Data Scientist – Causal Inference</i>	Bogotá, Colombia May 2023 – September 2024
<ul style="list-style-type: none">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 papersDeveloped automated high-resolution satellite imagery pipelines to process 10 years of global temporal data (9km × 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 <i>Lead Data Advisor</i>	Bogotá, Colombia October 2022 – January 2024
<ul style="list-style-type: none">Spearheaded the design and deployment of the institute's Analytics and Innovation Center, establishing a data-driven decisionmaking framework that bridged evaluation data to stakeholders across the national education systemLed 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 <i>Data Scientist</i>	Bogotá, Colombia October 2018 – October 2022
<ul style="list-style-type: none">Built XGBoost risk models (AUC 0.77–0.89) using 994,000+ criminal events to achieve potential 25% recidivism reduction or 36% detention efficiency gains; reduced Type I/II decision errors using prosecutor severity quintile methodologyAutomated reporting workflows on large judicial databases using R, estimating case outcomes, optimizing targeting, and translating analytical findings into 10 concise policy memos for senior leadershipScoped projects from design through delivery, applying causal inference matching and estimating methods for 5 distinct public policy evaluations on domestic violence and juvenile crime	

CEDE & CESED Research Centers, Universidad de los Andes

Research Assistant

Bogotá, Colombia

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: *Machine Learning, Data Science Clinic, Computer Science with Applications I and II* September 2025 – Present

- Led TA sessions on ML, software engineering, data structures, and algorithmic efficiency; designed and reviewed tutorials and graded code for all courses
- Advised Data Science Clinic teams through code review and architectural guidance on CV pipelines for organoid imaging, ML metabolite models, spatial analytics for Chicago rental prices, and graph-based cancer treatment response prediction

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

SELECTED PROJECTS

- **AI-Augmented Deliberative Committee:** Architected multi-agent system (Opus/Haiku) with 7 experts and 8 demographically-grounded personas (ACS 2022) to evaluate urban policy proposals [\[Link\]](#)
- **Conflict Prediction with ML:** Built ensemble ML pipeline (RF, NN, KNN) achieving 92.3% accuracy and 0.93 ROC AUC to predict violent conflict across 50km grid cells continent-wide; integrated ERA5 climate, UCDP events, and NASA VIIRS data using Google Earth Engine and PyTorch [\[Link\]](#)
- **Adversarial AI Committees for Personalized Competency Development:** Engineered persona simulation environments with Qwen2.5-7B (4-bit) to diagnose and reduce mechanical AI reliance; achieved 4.15-point improvement in methodological reasoning validated on 345 student author memos [\[Link\]](#)

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](#)
- Working paper: Using Artificial Intelligence in the Request of Pretrial Measures: approaching the Uncertainty in Recidivism Risk (With Daniel Mejía). [Available here](#)

For a complete list of publications and citation metrics, you can see my [Google Scholar profile](#).