

Iván Higuera-Mendieta

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EDUCATION

Stanford University

PhD - Earth Systems Science (Advisor: Marshall Burke)

Palo Alto, CA

Sept 2021 – Jun 2026 (Expected)

Universidad de los Andes

Bachelor of Sciences - Economics and Political Science (with thesis honors)

Bogotá, Colombia

Jul. 2008 – Mar 2015

Minor in Philosophy

RESEARCH EXPERIENCE

Pre-doctoral Fellow

University of Chicago - Economics Department [EPIC & Climate Impact Lab]

Feb 2019 - Jul 2021

Chicago, IL

Supervisors: Steve Cicala and the Climate Impact Lab

- Built APIs to retrieve real-time energy demand and climate data for the USA
- Developed an R library to assimilate wind model forecasts and link them to remote sensed pollution data.
- Built and maintained a library to calculate the Climate Impact Lab's Social Cost of Carbon under different discount and valuation scenarios.
- Taught and created new coding curriculum for new research assistants at the Becker-Friedman Institute and the Physical Sciences Department at the University of Chicago.

Data Scientist

University of Chicago - Computer Science Department

Feb 2018 - Feb 2019

Chicago, IL

Supervisor: Rayid Ghani (CMU)

- Supported senior Data Scientists in projects related to homelessness, criminal justice, and algorithm fairness
- Developed a Python sub-module to assess Machine Learning modeling outcomes

Research Analyst

Central Bank of Colombia

Nov 2015 – Nov 2017

Bogotá & Cartagena, Colombia

- Research assistant in the Regional Economics Research Unit

AWARDS AND FELLOWSHIPS

Stanford Data Science Fellowship

PhD Fellowship

2023-2026

International Sustainable Development Research Society

Best Paper Award: First Runner-up

2017

Data Science for Social Good Fellowship

Summer Fellowship - University of Chicago

2017

Ulpiano Ayala Prize - Universidad de los Andes

Best undergraduate thesis

2015

PUBLICATIONS & WORKING PAPERS

Higuera-Mendieta, I., Wen, J., & Burke, M. (2023). A table is worth a thousand pictures: Multi-modal contrastive learning in house burning classification in wildfire events. *NeurIPS 2023 Computational Sustainability: Promises and Pitfalls from Theory to Deployment*.
<https://openreview.net/forum?id=7KTQsrUIOy>

Rodolfa, K. T., Salomon, E., Haynes, L., **Higuera-Mendieta, I.**, Larson, J., & Ghani, R. (2020). Case study: Predictive fairness to reduce misdemeanor recidivism through social service interventions. *Proceedings of the 2020 Conference on Fairness, Accountability, and Transparency*, 142–153.
<https://doi.org/10.1145/3351095.3372863>

- Higuera-Mendieta, I.**, Farah, A., Song, Y., Franke, J. A., Moyer, E., & Nakamura, N. (2020). Arctic airmass displacement and reduced midlatitudes wintertime temperature variability under climate change [Presented at the American Geophysics Union 2020 Meeting].
- Bonilla-Mejía, L., & **Higuera-Mendieta, I.** (2019). Protected Areas under Weak Institutions: Evidence from Colombia. *World Development*, 122. <https://doi.org/10.1016/j.worlddev.2019.06.019>
- Bonilla-Mejia, L., & **Higuera-Mendieta, I.** (2017). Political alignment in the time of weak parties: Electoral advantages and Subnational transfers in Colombia. *Documentos de Trabajo sobre Economía Regional*, 260.

TECHNICAL SKILLS

Languages: Python, R, C++, SQL (Postgres), JavaScript, HTML/CSS

Developer Tools: Bash, Git, Docker, Singularity

Computing Tools: High-performance Computing, MPI, Amazon AWS, Spark