



Andrés Felipe Hoyos Martin

ECONOMIST & DATA SCIENTIST

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in [linkedin.com/in/andres-felipe-hoyos-martin](https://www.linkedin.com/in/andres-felipe-hoyos-martin)

TECHNICAL SKILLS

PROGRAMMING

Python R SQL

MATLAB Stata SPSS

MACHINE LEARNING & STATISTICS

Machine Learning AI Agents

NLP / LLMs

Predictive Analytics ARIMA

Survival Analysis

Econometrics

Demographic Models

DATA & BI

PostgreSQL Office

Web Scraping Power BI

Git Satellite Imagery

SOFT SKILLS

Analytical Thinking

Data Storytelling Teaching

Client Communication

Adaptability

Autonomous Work

EDUCATION

2017 – 2023

Doctoral Studies in Economics (not completed)

Universidad de los Andes · Bogotá, Colombia

2013 – 2014

Master in Economics

Universidad Icesi · Cali, Colombia

2004 – 2010

B.S. Economics

Universidad del Valle · Cali, Colombia

LANGUAGES

Spanish Native

English B2 (TOEFL IBT 84/120)

PROFILE

Economist and Data Scientist with a Master's in Economics and 10+ years of experience in statistical modeling, predictive analytics, and econometric methods (time series, panel data, discrete choice, survival analysis), combined with machine learning for prediction and classification. Proficient in Python, R, SQL, and Power BI across the full analytics pipeline. Experienced in building AI agent workflows with LLMs to automate analysis and structure unstructured data. Published researcher (*PLoS ONE*), with applied work in demand forecasting, fiscal performance, education analytics, and market analysis for public and private clients.

PROFESSIONAL EXPERIENCE

Oct 2023 Present Independent Data Science Contractor

Colombia

- ▶ **DANE** (Feb 2025 – Oct 2026) — Build and maintain demographic databases in R; estimate ARIMA forecasting models; develop ML-based population projection models.
- ▶ **Fondo Mujer** (Dec 2025 – Nov 2026) — Structure and migrate survey databases to SQL; design Power BI performance dashboards; conduct program impact evaluation research.
- ▶ **Alcaldía de Cali** (Jun 2024 – Apr 2026) — Develop ML and survival analysis models for property tax default prediction; design Power BI fiscal performance dashboards.
- ▶ **Atenea** (Aug 2024 – Jan 2025) — Build ML models to predict and prevent student dropout; manage databases using Python and PostgreSQL.
- ▶ **Acueducto de Bogotá** (Oct 2023 – Mar 2024) — Estimate econometric price forecasting models; automate data collection via web scraping.

Jan 2015 Jun 2023 Researcher & Lecturer

Colombia

- ▶ **Área Andina** (Aug 2022–Jun 2023) — Lecturer: Econometrics I & II · Macroeconomics · Principles of Economics.
- ▶ **Quantil** (Jan 2021–Dec 2022) — Lead predictive analytics projects; build and validate ML models in Python and R; design data pipelines.
- ▶ **Uniandes** (Aug 2017–Dec 2022) — Teaching Assistant: Advanced Econometrics · Advanced Game Theory · Short-Term Macroeconomics.
- ▶ **UAO** (Sep 2016–Sep 2017) — Source and analyze economic and social databases; estimate panel data and discrete choice models.
- ▶ **Icesi** (Jan 2015–Jul 2016) — Lecturer: Microeconomics I & II · Econometrics II · Principles of Economics.

PUBLICATIONS & AWARDS

2024 Police elasticity and optimal deployment

PLoS ONE, 19(3)

2014 Scholarship — Master in Economics

Universidad Icesi · Cali, Colombia

Oct 2008 1st Place — VII National Contest for Papers

FENADECO – Banco de la República · Barranquilla, Colombia