

Yabra Muvdi

I am an Economist and a Data Scientist interested in studying how modern statistical methods combined with new sources of data can enrich the understanding of public policy issues. I am particularly drawn to the study of income inequality and social mobility through the lense of text and network data.

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🌐 [LinkedIn](#)

🐙 [GitHub](#)

🌐 [Personal page](#)

RESEARCH EXPERIENCE

Barcelona School of Economics – Barcelona (Spain)

Predoctoral Researcher in Economics and Machine Learning

March 2021 - Present

- Currently working with professor [Stephen Hansen](#) to build models and tools for the use of unstructured data in economic analysis. Selected projects include:
 - Developing NLP models to predict the presence of remote work on over 500 million job postings. Current model can be tested online [here](#).
 - Characterizing firms within a trade network through the use of embedding models. [Here](#) is the poster I presented at a [CESifo workshop](#).
 - Measuring the evolution of economic uncertainty with word embeddings.

PROGRAMMING LANGUAGES

Python (JAX, NumPyro, PyTorch, dash, transformers, scikit-learn, statsmodels)
R (tidyverse, glmnet, caret, stats)
SQL
Stata

Universidad de los Andes – Bogotá (Colombia)

Research and Teacher Assistant

July 2015 - June 2018 (3 years)

- Developed econometric models with panel data of over six million children to understand the effects of a health policy in Bogotá. [Working paper](#).
- Co-authored an article with professor Adriana Camacho on the evolution of household poverty in Colombia. [Available online \(in Spanish\)](#).
- Supported three different courses at the Economics department with professors [Andrés Álvarez](#) and [Jimena Hurtado](#).

SOFTWARE

Git, Google Cloud, AWS, Docker, Linux, Heroku

EDUCATION

Barcelona School of Economics – Barcelona (Spain)

Graduate institution bringing together researchers from Universitat Pompeu Fabra and Universitat Autònoma de Barcelona.

Master Program in Data Science

September 2019 - July 2020

Relevant courses: Machine Learning (A+), Data Warehousing and Business Intelligence (A), Computational Machine Learning II (A+), Data Visualization (A-), Text Mining (A+), Stochastic Models and Optimization (A+), Networks (A-)

Master thesis: “Political Discourse on Twitter: An Analysis of Politicians’ Tweets Using a Structural Topic Model” (A). Available [here](#).

LANGUAGES

Spanish (native)
English (working proficiency)
French (basic)

Universidad de los Andes – Bogotá (Colombia)

Ranked as the 6th university in Latin America.

TOPICS OF INTEREST

machine learning, natural language processing, development economics, income inequality, algorithmic fairness, political philosophy

Bachelor's Degree in Economics

July 2013 - March 2018

Graduated in the top 5% of the class.

Relevant courses: Advanced Econometrics (A-), Linear Algebra (A), Economic Theories of Justice (A+), Empirical Applications of Political Economy (A), Game Theory (A-), Analysis of Armed Conflict (A+)

University of Chicago – Chicago (US)

Data and Policy Summer Scholar Program

July 2019 - August 2019

Online Courses

Undertook certified courses on: [Natural Language Processing](#) (deeplearning.ai), [R Programming](#) (John Hopkins University), and [The Challenges of Global Poverty](#) (MIT)

PROFESSIONAL EXPERIENCE

Instiglio – Bogotá (Colombia)

Award winning social enterprise focused on the design of innovative financial mechanisms to improve the impact of social programs.

Data Analyst

August 2018 - August 2019 (1 year)

- Led the design of predictive models to forecast the performance of educational programs in Liberia. Supported the design of an innovative financing mechanism for a five-year educational project in the country.
- Collected, cleaned, analyzed and visualized historical data of all the company's projects in order to produce relevant insights for the Board's annual meeting.
- Supported the business development efforts of the company by writing concept notes and formal proposals to prospective clients. Two of these efforts led to important projects for the company.
- **Achievements:** Got promoted from analyst level 1 to level 2 in 6 months.

Intern

January 2018 - July 2019 (7 months)

- Analyzed the available data on educational outcomes for Liberia and Namibia.
- Developed a comprehensive literature review on the effectiveness of several educational programs in developing countries.
- **Achievements:** Got selected as one of the interns who was promoted to analyst.

Enseña por Colombia – Bogotá (Colombia)

Education NGO part of the Teach For All network.

Data Analyst

May 2016 - December 2016 (8 months)

- Provided support in the systematization and analysis of all the data produced by this institution.
- Developed an impact evaluation proposal for the program.