

# Yabra Muvdi

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🌐 LinkedIn

🐙 GitHub

🌐 Personal page

## 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-)

**Advisors:** David Rossell, Omiros Papaspiliopoulos, and Nandan Rao

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

### Universidad de los Andes – Bogotá (Colombia)

Ranked as the 6th university in Latin America.

#### *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

## RESEARCH EXPERIENCE

### Barcelona School of Economics – Barcelona (Spain)

#### *Predocctoral 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.
  - Demonstrating methods for algorithmic text analysis in economics for a chapter in the Annual Review of Economics. [Final draft](#).

## TOPICS OF INTEREST

machine learning,  
bayesian statistics,  
algorithmic fairness,  
social mobility,  
income inequality,  
political philosophy,  
natural language  
processing

## PROGRAMMING LANGUAGES

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

## SOFTWARE

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

## LANGUAGES

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

## 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](#).

## 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.