Yabra Muvdi

yabramuvdi.github.io

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EDUCATION

Barcelona School of Economics — Barcelona, Spain
Master Program in Data Science; GPA: 8.57/10.0 — *Sept. 2019 – Sept. 2020*

- ○ **Relevant courses**: Machine Learning (A+), Data Warehousing and Business Intelligence (A), Data Visualization (A-), Text Mining (A+).

Universidad de los Andes — Bogotá - Colombia
Bachelor's Degree in Economics; GPA: 4.44/5.0 — *July 2013 – Dec. 2017*

EXPERIENCE

ETH Zürich - Data Science and Economics Group — Zürich, Switzerland
Doctoral Researcher, Member of ETH AI Center — *Sept. 2023 - Present*

- ○ **Recommender system**: Partnered with the Swiss Government (SECO) to develop a recommender system for the public employment service (RAV) to increase the quality of job matches. Integrated into the system strategies to reduce potential biases and explanations of the machine learning model predictions.
- ○ **Explainable AI**: Developing a taxonomy of explainable machine learning techniques and a field experiment to test how they affect people's perception of automated decisions.
- ○ **Teaching**: Supported the development of three different courses (GitHub).

Machine Learning Consultant — Remote
Selected projects — *June. 2020 - Present*

- ○ **Data extraction with LLMs**: Currently developing NLP tools for the Inter-American Development Bank to identify structural reforms in Latin American countries from the text of newspapers.
- ○ **Custom chatbots for market research**: Designed and developed multiple custom chatbots to interact with automatically generated transcripts of market research interviews.
- ○ **Income inequality visualization**: Developed a tool to interact with household income data en explore the distributional consequences of different shocks (Demo).

University College London - Barcelona School of Economics — Remote
Researcher in Economics and Machine Learning — *March 2021 - Aug. 2023*

- ○ **NLP projects**:
  - Partnered with Lightcast to develop a language model (finetunned distilBert) to predict the presence of remote work on over 1 billion job postings. Data currently used internally by the company and by over XX researchers, journalists and business analysts. Webpage - Media - Model
  - Demonstrated methods for algorithmic text analysis in economics. Article - GitHub
- ○ **Transactions data**: Characterizing firms within a trade network through the use of embedding models. GitHub - Poster - Blog post
- ○ **Summer Schools**: Taught practical sessions in multiple summers schools (CEMFI 2022, IESE 2023, CEMFI 2023, IESE 2024) on the use of machine learning for textual and unstructured data.

Instiglio — Bogotá - Colombia
Data Analyst — *Jan. 2018 - Aug. 2019*

- ○ **Model development**: 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.
- ○ **Data analysis**: Collected, cleaned, analyzed, and visualized historical data of all the company's projects to produce relevant insights for the Board's annual meeting.
- ○ **Business development**: 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 intern to analyst level 2 in a year.

SKILLS

- **Technical skills**: Causal inference, machine learning, explainable ML, natural language processing, large language models (chatbots, finetuning, RAG, prompting), algorithmic fairness, data visualization

- **Programming Languages**: Python, R, SQL, Stata   **Technologies**: GCP, AWS, Docker, Linux, Heroku

- **Languages**: Spanish (native), English (working proficiency), French (intermediate)