

Emilia Hernandez

Economist & Data Scientist

About Me

I am an economist and data scientist. My academic journey has equipped me with a deep understanding of quantitative analysis, while my hands-on experiences have taught me the importance of qualitative insights. I believe in leveraging data not just for numbers but for the broader well-being of communities and the environment.

I enjoy solving complex problems and blending economics and data science into meaningful projects.

Education

- **Bachelor's in Economics (2027)**
*Instituto Tecnológico Autónomo de México (ITAM)**
Focus on economic theory.
- **Bachelor's in Data Science (2027)**
Instituto Tecnológico Autónomo de México (ITAM)
- **International Trade Course (2024)**
Universitat Pompeu Fabra (UPF)

Professional Experience

Research Assistant

(Aug 2024 – Present)

*ITAM, Environmental and Development Studies**

- Conducted data analysis and field research on environmental policies and development.
- Supported projects focused on community-based development and policy evaluation.
- Worked under Dr. Victoria Nuguer.

Field Work with Ejido Communities in Hidalgo

*(Aug 2023 – Jun 2024)**

- Worked closely with local communities to understand their challenges and opportunities.
- Helped translate environmental policy frameworks into actionable strategies.

Member of the Data Science Student Council

(Jan 2024 – Dec 2024)

- Actively contributed to advancing data science projects and fostering collaboration within the student body.

Projects & Initiatives

- **Data Engineering Pipelines for Environmental Policy**

- Designed Python-based data pipelines for analyzing environmental taxes and economic indicators.
- Integrated data from multiple sources using tools such as PostgreSQL, pandas, and pyenv.
- **Data Engineering Pipelines for Fintech Impact in Developing Environments**
 - Built pipelines for analyzing income statements and balance sheets.
 - Utilized PostgreSQL and pandas for efficient data integration and processing.
- **Dockerized JupyterLab Environment**
 - Built and documented a reproducible Docker environment for data analysis and visualization.
 - Collaborated on creating user-friendly guides in Spanish for team members.
- **TSV Data Transformation for Policy Analysis**
 - Developed a unique approach to restructure and clean multi-year, multi-country datasets.
 - Enabled seamless integration into economic and environmental trend analysis.
- **Shapefiles**
 - Studied data from INEGI, the official Mexican institution for statistics and surveys, through shapefiles.

Technical Skills

- **Programming Languages:** Python (pandas, numpy), SQL (PostgreSQL, SQLAlchemy), Java, Shell
- **Data Tools:** MongoDB, Docker, JupyterLab, pyenv, Hadoop
- **Other Tools:** Git, Virtual Environments, Homebrew
- **Languages:** Fluent in Spanish and English

Interests & Fun Facts

- **Environmental Advocacy:** Deeply interested in balancing economic growth with environmental conservation. As a child, I partook in a program in which you pay a monthly fee to 'foster' an elephant to prevent poaching.
- **Hobbies:** Hiking and reading historic novels.
- **Women's Football:** Faithful fan of FCB Femení and Arsenal Women. Excited about data analytics focused on sports and growing women's sports.

Contact & Links

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