Guillermo Lezama

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SUMMARY

Economics PhD candidate at the University of Pittsburgh, specializing in Political Economy. Skilled in text-learning, machine learning, and applied microeconomics. Proficient in Python and Stata, adept at communicating complex data insights to a broad range of audiences. Experienced in teamwork, co-authorship, and advisory roles. Actively pursuing data science and analysis roles in economics or social sciences to apply and expand expertise in data-driven research.

SKILLS

- **Languages & Platforms:** Python, Stata, R, Julia, Matlab, ArcGIS, Tableau, SQL (basic queries).
- **Python Libraries:** OpenAI, Scikit-learn, Pandas, Matplotlib.
- **Machine Learning:** Naïve Bayes, Regressions, Random Forests (applied to text).
- **Quantitative:** Panel Data, Non-parametric econometrics, Causal Inference, Diff-in-diff, RDD, SGD, IV.

EXPERIENCE

University of Pittsburgh: Pittsburgh, PA   Jul 2021 – Jun 2022; Sep 2023 – Present
Research Assistant to Prof. Marla Ripoll
- Globalization Study: Explored China-Latin America trade effects on productivity.
- Econometrics: Used differences-in-differences, event studies, and instrumental variables for impact analysis.

University of Pittsburgh: Pittsburgh, PA   Summer 2022 and Summer 2023
Instructor of Intro to International Economics
- Created an asynchronous introductory course, producing 80 videos and designing accompanying quizzes/tests.
- Teaching Innovation: Utilized diverse methods and tools to enhance active learning and student engagement.

Universidad de la República: Montevideo, Uruguay   Feb 2013 – Jul 2019
Research and Teaching Assistant
- Developed an inequality estimation method for limited data, applied in a [paper](#) on 19th-century Uruguay.
- Developed accessible, real-world-focused math course materials for diverse undergraduates.

Legislator's Office: Montevideo, Uruguay   Feb 2015 – Feb 2017
Economics Advisor to a Member of the Parliament
- Information Synthesis: Crafted presentations and briefs simplifying economic concepts for non-specialist politicians, utilizing macroeconomic and budget data for effective communication.

SELECTED PROJECTS

Information about Corruption and Politicians' Proposals [(Paper)](#)
- Data Management: Processed 13K+ politicians' proposals, extracting and cleaning unstructured text for analysis.
- Machine Learning Classification: Categorized policy proposals into six areas using Machine Learning, and analyzed political manifestos' partisanship using WordScores and Naive Bayes Classification. [(Github Repository)](#)

Analysis of Politicians' Social Media (co-authored) [(Paper 1)](#) [(Paper 2)](#)
- Data Acquisition and Analysis: Extracted 14M tweets via Twitter's API, employing classification algorithms and OpenAI's API for topic analysis.
- Found human annotators outperform ChatGPT in **quality/cost.**

Relative Age Effect in Uruguayan Soccer Players [(Github Repository)](#)
- Scraped and compared birthdate data of Uruguayan soccer players (male and female) with the general population.
- Demonstrated birth month differences between male soccer players, female players, and the general population.
- Used logistic regression and survival analysis to predict youth soccer players' advancement by birth month.

Testing Qualitative Effects with Experimenter Demand (co-authored) [(Paper)](#)
- Experiment Design: Aided in designing lab and online experiments to measure experimenter demand effects.
- Computed Power Calculation using simulations on Python [(Google Colab for Power Calculation)](#)
- Defined a theoretical framework for presenting research insights.

Extreme Weather Events and Household Environmentally Friendly Consumption (co-authored)
- Efficiently merged and cleaned over 15M Nielsen Consumer Panel data points to analyze eco-friendly consumption metrics and assess extreme weather impacts on consumption.

Uruguayan Elections Data Exploration [(Github Repository)](#)
- Developed a user-friendly web application that enabled users to retrieve precinct-specific election results from the most recent elections by entering their ID, improving accessibility and engagement with electoral data.
- Analyzed voting trends, visualizing key shifts in preferences through election outcome comparisons.
- The application received over 1,000 visits in the first week of launch, demonstrating high interest among users.

EDUCATION

Summer Institute in Computational Social Sciences	July 2023
The Erdos Institute, *Data Science Boot Camp*	May 2023
University of Pittsburgh, *PhD Economics.* (Majors: Micro Theory, Applied Micro. Minor: Experimental Economics.)	2025 *(expected)*
Universidad de la República (Uruguay), *MSc International Economics.*	2019
BA Economics	2013