

Guillermo Lezama

(412) 897-0180 | Pittsburgh, PA | guillermo.lezama@pitt.edu | [LinkedIn](#) | [Github](#) | [Website](#)

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), Pyspark.
- **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

Amazon: Seattle, WA

Summer 2024

Economist Intern, Prime Economics

- **Multi-Way Fixed Effects Model:** Developed and implemented a model using PySpark to estimate customer speed sensitivity, aiding in the assessment of the value of changes in delivery speed.
- **Data Analysis:** Leveraged large-scale datasets to analyze customer behavior, providing insights that informed key business decisions.
- **Strategic Impact:** Measured the value of changes in delivery speed, helping the business to strategically plan investments based on customer preferences.

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.

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