Alejandro M. Ouslan

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EDUCATION

M.S. in Statistical Mathematics

Mayagüez, PR

University of Puerto Rico, Mayagüez GPA: 3.36

Aug. 2024 - May 2026 (Expected)

AEA Summer Program

Washington, DC

Howard University GPA: 3.75

May 2025 - Jul. 2025

B.A. in Economics

Mayagüez, PR

University of Puerto Rico, Mayagüez GPA: 3.50

Aug. 2019 - May 2024

AWARDS & PUBLICATIONS

Economic Report for the Governor 2023

May 2024

Puerto Rico Planning Board

San Juan, PR

- Calculated the Human Development Index (HDI) for Puerto Rico (2012–2023) and contributed a chapter to the Economic Report for the Governor 2023.
- Used data from IPUMS and other government sources.
- Report available at: Economic Report PDF

Best Graduate Research, Symposium on Applied Economics

June 2025

University of Puerto Rico, Mayaqüez

Mayagüez, PR

- Awarded 2nd place for best graduate research.
- Analyzed the effects of minimum wage changes on employment in foreign versus domestic businesses. Found
 varying impacts across NAICS sectors, with domestic businesses experiencing a reduction in employment and
 foreign businesses facing a stronger negative impact.
- Used uncensored QCEW data from the BLS and applied Bayesian panel regression with fixed effects to estimate the posterior coefficients of the minimum wage on employment.

Medal of the Department

May 2024

University of Puerto Rico, Mayagüez

Mayagüez, PR

• Recognized for excellence in undergraduate research and maintaining a GPA above 3.5.

X International Conference in Statistics and Operational Research

July 2023

University of Salamanca

Salamanca, Spain

- Published work on the importance of utilizing advanced tools like Python and SQL in academic research.
- DOI: 10.14201/0AQ0368

EXPERIENCE

Puerto Rico Planning Board

Jan. 2024 - Jul. 2025

Lead Developer

Mayagüez, PR

- Led a 15-person team to develop data pipelines for key economic indicators.
- Utilized Django for the frontend and FastAPI for the backend to build robust and scalable web platforms.
- Developed API endpoints to download data from government and private sector sources including USA Spending, PR Department of Labor, Census Bureau, PR Planning Board, PR Statistics Institute, Luma Energy, and BLS.
- Automated data ingestion processes into SQL databases on a monthly, quarterly, and yearly basis.
- Developed CI/CD pipelines using GitHub Actions, Docker, and Nix to streamline deployment processes.

Food Security Data Center (SEA), UPRM

Sept. 2023 – Jul. 2025

Lead Developer

Mayaqüez, PR

- Led a team of 5 engineers to develop web platforms for the Experimental Agricultural Station (SEA).
- Used IPUMS data to calculate caloric intake by county in Puerto Rico and created interactive maps.
- Developed automation tools for extracting and reporting food establishment data from the QCEW.

Agricultural Coffee Survey (SEA), UPRM

Mar. 2024 – Jul. 2025

Lead Developer

Mayagüez, PR

- Led a team of 5 engineers to develop digital survey tools for collecting field data from farmers.
- Built automation tools to ingest survey data and produce automated reports.

AEASP, Howard University

May 2024 - Jul. 2024

AEA Scholar

Washington, DC

- Conducted research with the U.S. Census Bureau on travel time and road infrastructure.
- Applied spatial regression to assess regional disparities across U.S. PUMAs (2012–2019).

LEADING Hispanics, USDA

Sept. 2023 – Aug. 2024

Research Assistant

 $Mayag\ddot{u}ez,\ PR$

- Analyzed the correlation between food deserts and chronic disease prevalence, finding a positive correlation between proximity to food deserts and higher cancer mortality rates.
- Applied Bayesian Spatial Durbin Model using uncensored QCEW data from the BLS.
- Evaluated spillover effects using spatial econometrics.

RUMbo EX, UPRM

Sept. 2023 – Jan. 2024

Statistics and Economics Tutor

Mayagüez, PR

- Tutored undergraduate students in Microeconomics, Macroeconomics, Econometrics, pre-Calculus I & II, Calculus I, Statistics I & II, and Engineering Economic Analysis.
- Led personalized one-on-one and group sessions with tailored study plans. Prepared simulated exams for students in Calculus.

L'SPACE HYDROS, NASA

Jan. 2020 – May 2020

Intern

 $Mayag\ddot{u}ez, PR$

- Collaborated with engineers to design a lunar drone for water extraction and prepared a project proposal.
- Managed the project's budget, ensuring costs remained below \$10 million.

EXTRACURRICULAR ACTIVITIES

University of Salamanca

Mar. 2023

 $Guest\ Lecturer$

Salamanca, Spain

- Delivered a workshop on Data Science and Research Automation for political science students.
- Taught web scraping and API integration in Python to create reproducible reports.

Economics Student Association

Aug. 2021 – Jun. 2022

Treasurer

 $Mayag\"{u}ez, PR$

- Managed the association's budget and tracked expenditures.
- Organized fundraising events to support student activities and conferences.

Student Money Association

Sept. 2019 - Jun. 2022

Student Advisor

 $Mayag\ddot{u}ez, PR$

- Assisted students in developing personalized budgets and improving financial literacy.
- Promoted campus-wide awareness of responsible money management.

SKILLS & INTERESTS

Skills: Python, Rust, R, STATA, LATEX, SQL, Git, Machine Learning, GIS, GAM, Docker, DevOps, Nix, PyMC

Interests: Macroeconomics, Spatial Econometrics, Bayesian Inference, Time Series Analysis, Causal Inference