



Juan Lozano

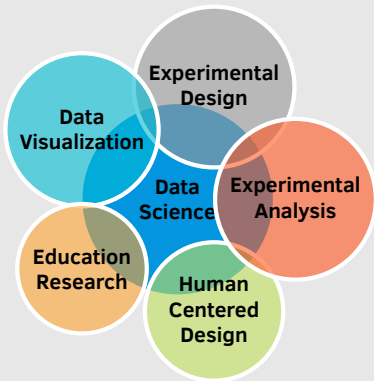
Mathematics &
Education Undergraduate

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Skills

Overview



Programming

Beginner \longrightarrow Expert

R • Python

Javascript • \LaTeX

Java • PHP • Stata • SQL

Projects

Data4Peace - Member of data4peace project, where we build data-based tools to answer policy questions about the Colombian peace process.

Learning Star Metalicity from Spectra

- Using machine learning to analyze star spectra. This project built on previous python packages and produced a package for efficient star spectra data cleaning for Neural Networks, which can be found on [github](#).

Political Ecology of Zoning - A report analyzing the effects of zoning laws, using rGIS, spatially weighted regression, and shiny. Data pulled from US Census and CDC datasets.

Education

May 2019 **Bachelor of Science in Mathematics** University of Texas at Austin
Certificate & certification in secondary math education
Related coursework: Applied Statistics, Measure Theory, Research Methods

Work Experience

- June 2018 **Data Science Intern** Dar es Salaam Tanzania
August 2018
- Built data science capacity in organization through data management, training, and building an analysis and visualization pipeline
 - Designed research studies for the measurement and evaluation of the efficacy of educational interventions
 - Analyzed data from various sources including an ongoing longitudinal study, nationally representative surveys, and SMS polling to get key metrics for various stakeholders in the organization
- Spring 2016 **Communications Intern** College of Natural Sciences, University of Texas
Spring 2017
- Helped build data visualizations for enrollment/college data using R, Shiny, and JavaScript technologies to present data to key stakeholders
 - Created news articles and press releases relating to research from all departments of the College of Natural Sciences (CNS) aimed at a lay audience
 - Aided in interviewing leading scientists about their research, and communicating those ideas to the public.

Research

- Fall 2017 **Innovations for Peace and Development** University of Texas at Austin
present **Team: Data4Peace**
Data based policy research about Colombia and the peace building and combatant reintegration process as result of the 2016 peace accord with the FARC. The focus has been on the challenges of municipalities with high combatant reintegration.
- Helped build a preliminary measure of vulnerability, using data from multiple sources disaggregated by municipality, with the tools of unsupervised learning
 - Produced GIS visualizations of key measures of violence and vulnerability
 - Aiding in preparation of a Regional Governace Activity report for USAID
- Fall 2016 **Directed Reading Program** University of Texas at Austin
Spring 2018 **Mentor: Darren King**
Intensive reading in geometric measure theory, resulting in four talks to date:
- "Lebesgue and Hausdorff Measure on R^n "
 - "Two Proofs of Rademacher's Theorem"
 - "Gradient Flow On Energy Functionals and the Heat and Allen-Cahn Equations"
 - "The Divergance Theorem for Manifolds".

Languages

Fluency in Spanish

Fluent in both conversational and academic Spanish, including reading and writing at an undergraduate level.