Aram Ramos

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Fully Work Authorized · No Sponsorship Required

SKILLS

Programming Languages: Python, R, SQL, ~~STATA~~
Tools: ~~Pandas, Dask, Folium, Ggplot,~~ Spark, Hadoop, GCP, ~~Hadoop, Hive,~~ Linux, GitHub, Tableau, ~~Tableau, Carto~~
Languages: English and Spanish (fluent)

EXPERIENCE

Data Scientist Analytics Engineer
US Cellular, Chicago, IL **November 2022 – present**

- ~~Developed an analytical tool to identify and mitigate impacts related to climate risk events on company's infraestreuture by using geospatial statistical analysis (Python), which reduced economic impact by 30%~~
- Identified areas of concern for the network ~~for the network performance~~ by using ~~using~~ geospatial statistical modelings ~~(Python, R)~~ and working with ~~large-scale~~large datasets (~~SQL, Spark~~Python,R,SQL), which improved 4 million customers' network perception ~~to improve operations by 20%~~
- ~~Developed~~ Built an anomaly detection tool by using machine learning ~~techniques~~ (Python, ~~high frequency~~ time series) and querying ~~large~~ big datasets (~~Python,~~ SQL) to discern meaningful patterns from outliers, which halved response times and saved $30K per event
- Implemented an ~~alarm correlation solution~~ analytical tool by using Large Language Models (Python, SQL) to automate 5 manual proceses that reduced~~reduce~~ alarm flooding by 70% ~~and optimize 5 network processes~~
- ~~Developed an analytical tool to cluster site locations by implementing a reproducible geospatial statisitcal analysis (Python, SQL), which helped 10 stakeholders to improve expansion strategies~~
- ~~Designed~~Performed ~~and communicated~~ 30 causal statistical analyses (R, Python) to identify and explain root causes of events in the network which optimized 10 proceses and benefited 4 million customers
- Communicated data-driven insights with compelling vizualizations (R, Python, Tableau) to support~~geospatial and temporal data visualization by using R, Python and Tableau for~~ 10~~10~~ non-technical stakeholders in decision-making
- Mentored 6~~3~~0 team members in ~~advanced~~ statistical and machine learning methods ~~methods~~ (~~regression, classification, clustering~~geospatial analysis, logistic regression, time series) by designing and addressing 2 reproducible workshops (R, Python,GitHub)

Data Scientist Consultant **January 2021 – August 2022**
Freelance, Seattle, WA

- Collaborated with the International Development Law Organization to ~~Developed~~ create data products by using explorative and statistical analysis (R), ~~experimental design and explanatory analysis (R) to consolidate the criminal justice system in Mexico~~ which improved 8,000+ police officers' competencies
- D~~Consulted utilizing subject matter expertise to d~~eveloped and ~~analyze~~tracked 30 metrics for ~~metrics for~~ 20 public-policy interventions by using statistical models (~~interrupted time series,~~ R, time series) that supported 3~~7~~0 ~~policymakers~~stakeholders from the German Agency for International Cooperation
- Implemented predictive models (R, time series) to forecast leading causes of death in Mexico to optimize 10 public health interventions and support 20 stakeholders
- ~~Researched leading causes of death in Mexico to build long-term forecasts according to demographic variables to support public health interventions by the Mexican Secretary of Public Health~~
- Identified new growth channels for 5 universities by performing statistical ~~models~~ analysis (forecasting, clustering, and customer segmentation, R, Python, SQL) to launch 30 new products that served 25,000 people
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Senior Data Scientist **September 2018 – January 2021**
La Salle University, Mexico City, Mexico

- Promoted to Sr Data Scientist; managed a team of 5 data analysts that used data science tools (R, Python, SQL) to ~~drive~~ guide strategic decisions for 70 programs and 5,000 students
- Guided statistical modeling ~~quantitative research by leveraing statistical modeling~~ and work~~ed~~ing with ~~large~~ big datasets (R, Python~~, STATA~~) to support growth strategies, which increased the number of programs by 30%

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- ~~Built a data tool visualization to communicate COVID-19 geospatial dynamic in Mexico City (R, Carto), wich have 10,000 of views per day and supported the Mexican Epidemiology Department~~
- Implemented predictive models by using machine learning and statistical ~~techniques~~ models (~~time series,~~ R, time series) to save ~~optimize resources by~~ $10 millions for marketing and financial team~~anually~~
- ~~Presented~~ Communicated complex insights ~~analysis~~ by using compelling visuals, dashboards, and reports (R, Python, Carto, Tableau) to support ~~for~~ 30 non-technical stakeholder ~~to~~ in ~~improve~~ decision-making

Data Scientist **September 2015 – August 2018**
La Salle University, Mexico City, Mexico

- Performed ~~statistical and demographic research~~ statistical modeling (R(regression, time-series analysis, clustering, R) ~~, STATA)~~ to identify ~~and evaluate population health~~ new growth opportunities ~~dynamics~~, which resulted in openning a new campus valued in $150 millions~~The School of Higher Studies in Health~~
- Implemented an analytical ~~tool~~ tool by using predictive ~~statisical~~ machine learning models (Python) to reduce students' dropout rate by 15% per year
- Conducted experimental~~experimenatl~~ design by developing and analyzing large-scale surveys (~~STATA~~R) to identify and improve customers' perception and ~~improve students' perception and~~ critical needs, wich improved 70 programs and served 5,000 studen
- ts
- ~~Generated~~ Generated and communicated 50 customer intelligence analyses by using statistical modeling and working with large datasets to support leadership in decision-making ~~50~~ (R, Carto) ~~analyses by using statistical modeling and working with large datasets (R, Stata) to assist leadership in decision-making~~
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Statistician **January 2015 – August 2015**
Volaris Airlines, Mexico City, Mexico

- Developed an analytical solution to detect anonaly consumption patterns by using time series modeling (R), which increased revenue by 5%
- Redesigned data extraction pipelines by implementing SQL queries in large datasets to reduce waiting times by 70%
- Executed 5 data projects simultaneously (forecasting, customer segmentation, clustering, regression analysis) to improve 10 products and services that served 1 million customers per month

EDUCATION

Master of Science in Demography, The College of Mexico (Mexico City) **July 2012**
Coursework: Time Series, Advanced Regression Analysis, Advanced Statistics, Statistical Programming (R, Stata)

Bachelor of Science in Actuarial Mathematics (Major in Statistics), **July 2008**
National Autonomous University of Mexico (Mexico City)
Coursework: Statistics, Probability, Regression Analysis, Stochastic Processes, Forecast Models, Linear Algebra, Finance, Risk Theory, Actuarial ~~Models~~Mathematics, Advanced Calculus

PROJECTS

Geospatial statistical modeling to analyze COVID-19 deaths in Mexico City. Developed an interactive dashboard to communicate analytics for COVID-19 deaths in Mexico City by using advanced statistical techniques, which received 5,000+ views per day (R, Carto)

Statistical modeling to forecast mortality in Mexico (2018) (Silva, E. Ramos, A & K. Olvera). Researched death probability and life expectancy for Mexico by using advanced forecast and statistical techniques to improve death rates predictions for the insurance industry (R)

Fatal car accidents in Mexico City, a geographical and temporal perspective (2015) (Ramos, A., Silva, E. & A. Aguirre). Performed explorative data analysis and advanced forecast models for fatal traffic accidents in Mexico City to guide public health requirements (R, Matlab)

~~SCIENTIFIC RESEARCH PUBLICATIONS~~

~~**Inferences on mortality using the Heligman-Pollard model: the Mexican case (2018)** (Silva, E. Ramos, A & K. Olvera). Communications in Statistics – Simulation and Computation, 49(12), pp. 3227-3239~~

~~**Fatal car accidents in Mexico City, a geographical and temporal perspective (2015)** (Ramos, A., Silva, E. & A. Aguirre). *Population Papers*, 21(86), pp. 253-282~~

~~Performed explorative data analysis and advanced forecast models for fatal traffic accidents in Mexico City to guide public health requirements (R, Matlab)~~

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~~**Potential Child Labor projections: A demographic approach (2011).** (Silva, E. & A. Ramos) *Population and Health in Mesoamerica*, 8(2), pp 1-23.~~

ADDITIONAL EXPERIENCE AND AWARDS

MIT Sloan Fellow (2018): Awarded 1 out of 2 competitive full fellowships by MIT Sloan to pursue "*Leveraging Big Data for Sustainable Development*" program at MIT Media Lab

Undergraduate and Graduate Instructor (September 2012 – December 2021): Taught undergraduate and graduate full-credit courses (National Autonomous University of Mexico-UNAM, La Salle University, Iberoamerican University, Anahuac University). Mentored 6-60+ students per class: Biostatistics, Generalized Linear Models, Mathematical Demography, Time Series Analysis, and Actuarial Mathematics. Used Stata, R, Python.

Volunteer Interpreter (April 2021- September 2021): Sacramento Alliance for Vaccine Equity**,** Sacramento, CA**.** Translated between Spanish and English, filled out forms, and entered data to help 10,000~~+~~ neighbors to get 16,000~~+~~ COVID-19 vaccine doses

Second Prize, Enhance Your Ideas Competition (January 2019): Awarded 2nd prize for "Building a Data Lab at La Salle University" project

PROFESSIONAL DEVELOPMENT

Professional Career Advancement Program in Data Science, Correlation One, USA (remote), 2023

Building LLMs Applications from Scratch into Production workshop, SDSC, Atlanta, GA, 2023

Python for Scientific Research course, National Polytechnic Institute, Mexico City, Mexico, 2021

Leveraging Big Data for Sustainable Development program, MIT, Cambridge, MA, 2018

Project Management course, La Salle University, Mexico City, Mexico, 2014