Luis Ledesma

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WORK EXPERIENCE

MCMASTER UNIVERSITY   Hamilton, ON
Statistical Analyst (II)   Oct 2023 – Present
- Applying established statistical methods and techniques to analyze and interpret data as part of the CHILD cohort study team.
- Overseeing the design and maintenance of databases, data collection forms, error-checking methods, and related programs for collection, analysis, and reporting.
- Coordinating and managing the collection, delivery, entry, verification, analysis, and reporting of data.

DALLA LANA SCHOOL OF PUBLIC HEALTH, UNIVERSITY OF TORONTO   Toronto, ON
Research Assistant   May 2022 – May 2023
- Developed statistical models, conducting data management and linking in collaboration with experts to study the relationship between COVID-19 vaccine uptake and risk perception for a representative sample of over 1,000 postsecondary students.
- Utilized stratified regression models and survey weighting in R to address repeated measures and cohort attrition, leading to the finding of a significant increase of up to 35% in monthly vaccine uptake among non-healthcare working students in May 2021.
- Collaborated in manuscript preparation and presented research findings at the 2023 Canadian Immunization Conference.

MINISTRY OF HEALTH OF PERU - MINSA   Lima, Peru
Biostatistics Consultant   Jun 2021 – Aug 2021
- Designed and implemented mathematical and statistical models of disease subject to surveillance in affected regions of Peru, with a particular focus on the COVID-19 outbreak.
- Prepared technical reports on epidemiological surveillance indicators for vaccine-preventable diseases such as pertussis.

UNITED NATIONS POPULATION FUND - UNFPA   Lima, Peru
Biostatistics Consultant   Apr 2021 – Jul 2021
- Designed and implemented spline and time series models accounting for the impact of COVID-19 to produce monthly adjusted forecasts of the maternal mortality ratio (MMR) trends in Peru at the national and provincial levels.
- Prepared figures, presentations, and reports of the findings to effectively communicate with stakeholders and policy-makers.

VITAL STRATEGIES   Lima, Peru
Biostatistics Consultant   Aug 2020 – Jan 2021
- Researched and implemented statistical methods to account for up to 14 days in reporting delays in COVID-19 cases using R and Python, along with other models examining the COVID-19 outbreak in Peru.
- Automated data cleaning and linking procedures of large administrative health datasets with over 1,000,000 observations to use RMarkdown for daily report generation, and elaborated interactive data visualizations using Shiny.

EDUCATION

UNIVERSITY OF TORONTO   Toronto, ON
MSc in Biostatistics, GPA: 4.00/4.00   Sep 2021 - Sep 2023
Thesis: Intercept estimation of semi-parametric joint models in the context of longitudinal data subject to irregular observations.
NORTHWESTERN UNIVERSITY   Evanston, IL
Graduate coursework in Mathematics   Sep 2017 - Jul 2019
MCGILL UNIVERSITY   Montreal, QC
BSc in Honours Mathematics, GPA: 3.97/4.00, Research project: Eigenvectors of Elements in Z[SU(2)]   Sep 2013 - June 2017

LEADERSHIP AND EXTRACURRICULARS

UNIVERSITY OF TORONTO   Toronto, ON
Teaching Assistant, Department of Statistics   Jan 2022 – Jun 2023
- Hosted tutorials, office hours, and lectures in 6 courses ranging from introductory to upper-year level Statistics.

MINISTRY OF HEALTH OF PERU - MINSA   Lima, Peru
Content Coordinator and Instructor   Jun 2021 – Jul 2021
- Coordinated content at a course aimed at over 100 health professionals across Latin America based on reproducibility in R.

ADDITIONAL

Technical Skills: Statistical Programming (R, SAS), Python, Data Manipulation (SQL, Tidyverse), Mathematica, MATLAB, Git, Report Generation (R Markdown, Jupyter, LaTeX), Data Visualization (Tidyverse, Shiny)
Relevant Knowledge: Statistical Simulation, Longitudinal Analysis, Survival Analysis, Multiple Imputation, Experimental Design
Honours & Awards: ISM Undergraduate Summer Scholarship (2016), Edward Rosenthal Memorial Prize in Mathematics (2017), First Prize Poster Presentation - Master's, Canadian Statistics Student Conference (2023)