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
Biostatistics Consultant — May 2022 – June 2023
- Developed and applied statistical models to analyze COVID-19 vaccine uptake and risk perception in a cohort of 1,000+ postsecondary students, utilizing stratified regression and survey weighting in R to address repeated measures and attrition.
- Conducted data management, linking, and analysis, identifying a 35% increase in monthly vaccine uptake among non-healthcare students, and presented findings through a manuscript and a presentation at the 2023 Canadian Immunization Conference.

BAYCREST HEALTH SCIENCES — Toronto, ON
Biostatistics Practicum Researcher — Sep 2021 – Jun 2022
- Enhanced longitudinal analyses by integrating novel survival analysis techniques to uncover performance trends in online brain health assessments, addressing missing data and irregular observations, while optimizing statistical implementations in R.
- Developed and implemented strategic statistical analysis plans, ensuring alignment with study design and reporting guidelines (STROBE) for impactful, reproducible findings.

UNITED NATIONS POPULATION FUND - UNFPA — Lima, Peru
Biostatistics Consultant — Mar 2021 – Aug 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.

MINISTRY OF HEALTH OF PERU - MINSA — Lima, Peru
Research Analyst — Mar 2020 – Aug 2021
- Developed and implemented statistical models in R and Python to address reporting delays in COVID-19 case data.
- Automated data cleaning and linking of large administrative health datasets with over 1,000,000 observations, and generated daily reports in RMarkdown and interactive visualizations using Shiny to deliver insights into the COVID-19 outbreak in Peru.

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 - Jun 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 - May 2017

LEADERSHIP AND EXTRACURRICULARS

UNIVERSITY OF TORONTO — Toronto, ON
Teaching Assistant, Department of Statistics — Jan 2022 - Jun 2023
- Delivered tutorials, hosted office hours, and conducted lectures in 6 courses ranging from introductory to advanced Statistics.
- Prepared weekly coding demonstrations in R to deepen students' comprehension and practical application of statistical concepts.

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)