Luis Ledesma

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WORK EXPERIENCE

DALLA LANA SCHOOL OF PUBLIC HEALTH, UNIVERSITY OF TORONTO   Toronto, ON
Biostatistics Consultant   May 2022 – Present
- Developing 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 1000 postsecondary students.
- Utilizing 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 vaccine uptake among non-healthcare working students in May 2021.
- Collaborating in manuscript preparation and presented research work at the 2023 Canadian Immunization Conference.

BAYCREST HEALTH SCIENCES   Toronto, ON
Biostatistics Practicum Researcher   Oct 2021 – Jun 2022
- Assessed the impact of irregular testing dates of online brain health assessments (BHAs) taken over time by older adults using GEEs and mixed-effects models, finding that after a learning curve during the first two years, test performance starts to decline.
- Extended existing longitudinal analyses of the BHAs by using novel methods incorporating survival analysis to account for irregular observations and missing data, along with their statistical implementation in R.

UNITED NATIONS POPULATION FUND - UNFPA   Lima, Peru
Statistical Consultant   Mar 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 a multidisciplinary research team.

MINISTRY OF HEALTH OF PERU - MINSA   Lima, Peru
Research Analyst   Mar 2020 – Aug 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   Expected 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 - Present
- Hosting tutorials, office hours, and held lectures in courses ranging from introductory to upper-year level Statistics.
- Preparing weekly coding demonstrations in R and RMarkdown to reinforce students' understanding of the material.

DALLA LANA SCHOOL OF PUBLIC HEALTH, UNIVERSITY OF TORONTO   Toronto, ON
Student-led Conference Content Sub-committee   Oct 2022 – Nov 2022
- Curated academic content and collaborated in script preparation at a Public Health conference with over 300+ attendees.

MINISTRY OF HEALTH OF PERU - MINSA   Lima, Peru
Content Coordinator and Instructor   Jun 2021 – Jul 2021
- Coordinated and taught content at a course aimed at over 100 health professionals and policymakers across Latin America based on RECON R learn, a platform centered on reproducibility in R, data visualization, management and wrangling using Tidyverse.

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, Clinical Trials
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)