Jonathan Luu

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Education

Harvard University, Graduate School of Arts and Sciences
PhD, Biostatistics

University of Southern California, Keck School of Medicine
MS, Biostatistics

University of Southern California, Viterbi School of Engineering
BS, Computer Science & Computer Engineering

Work Experience

Principal Biostatistician: Regeneron Pharmaceuticals 2024

Intern: Bristol Myers Squibb 2023
- Explored relationship between surrogate endpoints (PFS/ORR) and overall survival in cancer trials
- Compared correlation coefficients (Pearson, Spearman, Kendall, Harrell) to verify Prentice criteria of surrogate endpoints to justify their use in cancer trials, stratified by treatment and indication type

Research Assistant: Boston College 2023
- Designed an analysis plan for a multiple-period cluster-randomized crossover trial to test the effectiveness of motivational interviewing on COVID-19 and influenza vaccine uptake

Teaching Assistant: Harvard T.H. Chan School of Public Health 2020-2023
- Served as TA for Applied Survival Analysis, Intro to Data Science, and Survival Methods in Clinical Research

Consultant: Biostatistics Consulting Center 2021-2022
- Advised Harvard students on study design, analysis planning, and programming for various projects
- Taught R programming and basic statistics to high school students through lecture, lab, and group projects

Research Assistant: Enguidanos Labs 2018-2019
- Presented data to funding agencies for a clinical trial comparing home-based to hospital-based palliative care

Research Experience

Comparing methods for multiple-period cluster-randomized crossover trials 2024
- Compared characteristics of marginal and mixed effects models for CRTs under small sample conditions

Measuring performance for costs and healthcare utilization in nursing 2024
- Proposed novel metrics for comparing hospitalization costs and profiling nursing homes

Hierarchical models for longitudinal clustered semi-continuous data subject to mortality 2023
- Developed a Bayesian discrete-time model to efficiently analyze cost data in nursing homes

Determinants of social risk screening and response equity in community health centers 2022
- Characterized missing data in electronic health records for Caring Health Center

Prevalence, incidence, and reversal pattern of childhood stunting from birth to age 2 years in Ethiopia 2022
- Analyzed newborn data with measurement error to determine relationship between malnutrition and stunting

Duration of viral shedding and culture positivity with post-vaccination breakthrough delta variant infections 2021
- Performed survival analysis on COVID-19 viral load/culture data to determine optimal quarantine period

A simulation evaluation of the effectiveness and usability of the 3+3 design for phase I clinical trials 2019
- Compared the 3+3 algorithm for phase I RCTs with more sophisticated methods through simulation