Linh Dinh

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HIGHLIGHTS

- Six (6) years of research experience in designing and implementing studies and analyzing quantitative observational and randomized trial data.
- Well-versed in statistical and mathematical modeling, including linear and non-linear mixed-effects models, multivariate analyses, survival analysis, causal inferences, and predictive modeling.
- Skills:
 - Analytical tools: R (most proficient), Python, SAS, Julia, Mplus, and Latent GOLD
 - Data-query skills: SQLite, PySpark
 - Portfolio website: https://linhdinh.io
- Managing experience: Managed 2 direct reports at Abbott. Supervised 2 Master's students on their theses.
- 4 Abbott Excellence Awards

EXPERIENCE

Aug 2022 – present Home-based, Canada

IQVIA (AstraZeneca Partnership) • Currently on training

Senior Statistician

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Abbott

- Provided statistical leadership for clinical studies (e.g. study design, sample size estimation, statistical methods for clinical plans and protocols, communicate with other stakeholders for statistical issues). Acted as the lead statistician in clinical studies of the Polaris program (15 clinical studies), and had successfully submitted one (1) 510K submission to FDA.
- Wrote and executed detailed statistical analysis plans. Co-authored clinical reports.
- Formulated statistical analysis plan templates to boost productivity in study planning.
- Programmed R functions to substitute off-the-shelf statistical tools currently utilized at APOC and automate report generation.
- Models used: Mixed-effects models, linear regression, equivalence test (TOST), Passing-Bablok regression, Monte-Carlo simulation for sample size estimation.
- Supervised 2 direct reports. Mentored new statisticians.
- Received 4 Abbott Excellence Awards: 2 Silver Awards for Pioneering, and 2 Silver Awards for Achieving

Adjunct Lecturer

- Thai Binh University of Medicine and Pharmacy
 - Provide consulting service on study design and data analysis for faculty and undergraduate students.
 - Act as a co-principal investigator in 1 province-funded project studying suicide attempts by Gelsemium elegans in Hmong ethnic population. Design the study protocol and analyze data.

Graduate Research Assistant

Georgia State University

Aneja Lab (https://anejalab.net) (2020-2021)

• Conducted exploratory data analyses and survival analyses of breast cancer epidemiology data.

Health Equity cluster (2018–2020)

• Undertook dissertation to study trends and progression of frailty in the older population in 9 European countries; and drafted manuscripts for publication. Models used: hierarchical age-period-cohort beta regression (R package glmmTMB) and latent transition analysis (LatentGOLD).

Big Data Analytics cluster (2016-2017)

- Designed studies to investigate the growth and spread pattern of infectious diseases (e.g., Zika, HIV/AIDS, Influenza); analyzed data with regression, hierarchical model, and ordinary differential equations (R, MATLAB and SAS macro); and authored peer-reviewed papers.
- Led a team of 6 participating in FluSight Challenge 2017-2018 to forecast seasonal influenza. Model used: Random Forest (R package caret). Ranked 18/29.
- Co-supervised 2 students on Master's theses about Yellow Fever and Ebola outbreaks in Africa.

Intern

Health Emergencies Programme, World Health Organization

- Coordinated with more than 50 external researchers to assess the spread and severity of the COVID-19 pandemic.
- Created and managed a database of up-to-date findings of COVID-19 mathematical modeling. Synthesized findings and reported to policy-makers daily.
- Summarized national-level seasonal influenza data and prepared biweekly Influenza Updates reports (Report 360, 361, 362).
- Co-authored 1 scientific paper.

Sep 2020 – Mar 2022

Ottawa, ON, Canada

Nov 2018 - present

Thai Binh, Vietnam

Sep 2016 - Jul 2021 Atlanta, GA, USA

Jan 2020 – Feb 2020 Geneva, Switzerland

Course/Side Projects

- Fitting compartment model (SEIR) to the U.S. tuberculosis epidemic using a Bayesian approach, written in Julia. Github
- Shiny app to forecast infectious disease outbreaks, using generalized growth models. Back-end model: Python. Front-end: Flexdashboard. Infectious disease forecasting Shiny app.
- Shiny dashboard summarizing COVID-19 outbreak at the global, national and regional levels. COVID-19 Summary Dashboard
- Predicting 2-year risk of fall in the 50+ older population in the U.S. Models tested: Logistic Regression, Linear Discriminant Analysis, k-nearest neighbors, Support Vector Machine, Random forest, Neural Network, ensemble model. Report
- Estimate excess mortality rate during seasonal influenza in Spain. Models used: Serfling regression which is Poisson and Negative Binomial Regression with seasonal components. Tools used: R and SAS. <u>Github</u>

Education

Georgia State University	Atlanta, GA, USA
Ph.D. in Public Health (Research focus: Mathematical epidemiology & Applied Statistics)	. GPA: 3.97 Aug 2016 – Jul 2021
Georgia Institute of Technology	Atlanta, GA, USA
M.S. in Analytics. GPA: 4.0	Aug 2020 – Expected May 2023
Hebrew University of Jerusalem	Jerusalem, Israel
Master of Public Health. GPA: 4.0	Oct 2014 – Sep 2015
Hanoi Medical University	Hanoi, Vietnam
Doctor of Dental Surgery. GPA: 3.57	Sep 2007 – Aug 2013

Research record

I have published 6 peer-reviewed papers. See details at Linh Dinh's GoogleScholar.