THOMAS CARPENITO

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EDUCATION

Ph.D. in Population Health — 2022
Northeastern University, Boston, MA

M.A. in Biostatistics —2018
University of California Berkeley, Berkeley, CA

B.S. in Behavioral Neuroscience — 2013
Northeastern University, Boston, MA

RESEARCH EXPERIENCE / PROJECTS

MOBS, Northeastern University — 2020 - present
Department of Network Sciences

- Development of computational techniques for the simulation of the spatial spreading of infectious diseases (specifically, Covid-19) in structured populations

PROTECT/CRECE, Northeastern University — 2018 - present
Department of Civil and Environmental Engineering

- Investigation of environmental factors and their effects on preterm births in Puerto Rico

LAUNCH, Northeastern University — 2020 - present
Department of Health Sciences

- Evaluates the efficacy of an innovative early childhood mental health intervention, Massachusetts Project LAUNCH

Construct Secure, Northeastern University — 2020 - present
Department of Physical Therapy

- Analyzing the Assessment of Contractor Safety (ACES) survey tool collected on contractors in the Boston area to assess worksite risk and safety

SuperLearner in Stata, University of California Berkeley — 2017 - 2019

- Software designed to natively implement the machine learning algorithm super learner in the statistical programming language Stata

Student Assessment of Mental Health, University of California Berkeley — 2017 - 2018

- Collaborated with the ASUC AAVP Mental Health and Wellness Policy Director to identify student utilization of campus resources geared towards improving student wellness

TEACHING EXPERIENCE

Lecturer — 2019-present
Department of Communication Sciences and Disorders, Northeastern University
- Course: *Practical Statistics for Speech-Language Pathology and Audiology — SLPA6420*
- Redesigned graduate course to include new: lectures, lab activities, homework assignments, and exams for both in-person and online formats for the summer
- Topics covered: parametric/non-parametric testing, confidence intervals, sampling distributions, and STATA programming

Guest Lecturer — 2020
Department of Health Sciences, Northeastern University
- Course: *Foundations in Biostatistics — PHTH2210*
- Designed and delivered a lecture titled "A (gentle) Introduction to Machine Learning" covering topics of supervised and unsupervised learning

Graduate Student Instructor — 2018
Department of Public Health, University of California Berkeley
- Course: *Categorical Data Analysis — PBHLTH 241*
- Topics covered: linear/logistic regression, epidemiological study design, interaction and confounding, causal inference

Graduate Student Instructor — 2016-2017
Department of Public Health, University of California Berkeley
- Course: *Introduction to Probability and Statistics in Biology and Public Health — PBHLTH 142*
- Topics covered: parametric testing, probability distributions, confidence intervals, regression, and STATA programming

CONFERENCES

"Multiple Imputation Through Super Learning (MISL)", presenter, Symposium on Data Science and Statistics, virtual, 2020

PUBLICATIONS

"Cohort profile: Center for Research on Early Childhood Exposures in Puerto Rico (CRECE)" - *in review*

"Changes in Infant Non-Nutritive Sucking throughout a Suck Sample at 3 Months of Age" - *in review*

AWARDS

Outstanding Graduate Student Instructor Award, University of California Berkeley — 2018

SERVICES

Session chair for *Machine Learning 5* at the Symposium on Data Science and Statistics, virtual — 2020

PROFESSIONAL WORK EXPERIENCE

Statistical Programmer — 2017-2018
Vertex Pharmaceuticals, Boston, MA

- Programmed using SAS software (BASE, STAT, GRAPH, MACRO) for the production of SAS MACROs
- Assisted in the planning, and execution of new and existing programs for the Biometrics Department

Programmer/Analyst/Database Administrator — 2015-2016
University of California San Francisco, San Francisco, CA

- Added new features to the internal tools used by researchers querying databases with SQL
- Built software to aid in the assistance of data collection outside the university

Software Developer — 2014-2015
Bulavard Inc., Mountain View, CA

- First full-time programmer employee for a "software as a service" startup in the Silicon Valley
- Full-stack web development covering tasks from design and planning to implementation and deployment

TECHNICAL SKILLS

R, STATA, Python, SAS, Git/Github, SQL, LaTeX