Matthew Curran

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EDUCATION

Columbia University Mailman School of Public Health, New York, NY — May 2020
Master of Public Health in Epidemiology, Certificate in Applied Biostatistics, GPA: 3.9
The Pennsylvania State University, University Park, PA — December 2015
Bachelor of Science Double Major in Immunology and Infectious Diseases and Forensic Science
Minor in Biochemistry and Molecular Biology

TECHNICAL SKILLS AND CERTIFICATIONS

Programming: R, R Markdown, SAS, and SQL
Laboratory Skills: Gel Electrophoresis, RAPD, and PCR
MS Office Suite: Expertise in Excel, Word, PowerPoint, and Access
Data Applications: GIS and Shiny
Knowledge: Data Science and Statistical Modeling
Certifications: HIPAA and CITI

Research Projects

Columbia University Mailman School of Public Health, New York, NY — September 2019 – May 2020
Graduate Thesis – Department of Epidemiology (R)
Examining effects of alcohol consumption and binge drinking on sleep apnea in the United States
- Set inclusion and exclusion criteria for study sample and operationalized variables from NHANES data
- Cleaned and merged 6 NHANES data sets to use in analysis
- Performed multiple imputations of data and matching of cases and controls based on propensity scores of potential confounders
- Finalized regression models using Akaike information criterion

Data Science Final Project (R) — September 2019 – December 2019
Climate Change Indicators and Count of Natural Disasters in the United States (1953-2018)
- Imported and tidied data directly from NOAA website, created count data (tidyverse, rvest)
- Analyzed trends of climate change indicators and counts of natural disasters (R Shiny, plotly)
- Used cross validation to choose between Poisson and Negative Binomial regression models to examine the association between climate change indicators and count of natural disasters (modelr, mgcv)
- Coordinated with 5 other group members using Github
- Built project website through Github

PROFESSIONAL HEALTHCARE EXPERIENCE

New York City Department of Health and Mental Hygiene, New York, NY — June 2019 – Present
City Research Scientist I (March 2020 – Present)
- Currently part of the research and analytics cell reviewing the performance of NYC COVID-19 Alternate Care Sites and identifying future mitigation strategies
- Acted as alternate care site Liaison Officer (LNO) during COVID-19 response
- Conducted demographic data analysis for Javits NYMS & USNS Comfort patients

Disease Control Intern (June 2019 – March 2020)
- Conducted surveillance of Salmonella and Shigella infections in New York City by administering hypothesis generating questionnaires
- Investigated foodborne disease outbreaks by designing questionnaires and analyzing data using SAS
- Performed hospital and laboratory provider follow ups to verify case contact information and laboratory test results
- Prepared written reports summarizing outbreak investigations
- Responsible for quality assurance and data entry of Shigella interviews
- Investigated contacts of index case of COVID-19 in NYC for symptoms and extent of contact

Medstar Health Simulation Training and Education Lab (SiTEL), Baltimore, MD — June 2014 – August 2018
Simulation Specialist II (December 2017 – August 2018)
- Coordinated staff and led large-scale training sessions in multiple fields of medicine
- Trained 5 new hires in the Baltimore office
- Identified and implemented solutions to problems related to simulation equipment, hardware, and software
- Created new simulation scenarios and implemented new training programs
- Instructed and certified healthcare providers in Basic Life Support (BLS)

Simulation Specialist I (January 2016 – November 2017)
- Collaborated with physician and nurse educators to optimize training sessions
- Served as a simulation operator by programming and running scenarios
- Performed ongoing maintenance of multimillion-dollar inventory
- Assisted in launch of new mobile simulation lab for off-site training programs
- Updated staff procedures for in-hospital trainings of obstetric emergencies

Student Intern, Washington, D.C. (Summer 2014, 2015)

- Implemented laboratory inventory system for tracking of simulation devices and supplies
- Assisted healthcare professionals during simulations and training sessions
- Responsible for the care and upkeep of advanced medical simulation devices
- Developed new model for residents to practice cricothyrotomy