

Shelby Scott

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EDUCATION

UNIVERSITY OF TENNESSEE, KNOXVILLE

PHD - ECOLOGY AND EVOLUTIONARY BIOLOGY, MS - STATISTICS
May 2021

Dissertation Topic: Spatio-Temporal Modeling of Gun Crime in Chicago, Illinois
MS Thesis Topic: Analyzing Covariates of Diabetes Using Bayesian Linear Regression and Model Selection

RHODES COLLEGE

BS - BIOMATHEMATICS
May 2015

Senior Thesis Topic: An Agent-Based Model of Golden Eagle Predation on the Santa Cruz Island Fox

SKILLS AND RELEVANT COURSEWORK

SKILLS

Data Visualization (Tableau, PowerBI, D3)
Data Analytics and Statistical Modeling (R, Python, C++, Excel)
Mathematical Modeling (R, Matlab, Mathematica, Netlogo)
Data Collection and Management (REDCap, PowerPlatforms, GitHub)
Geospatial Analysis (ArcGIS, QGIS)
Business Development
Project Management

RELEVANT COURSEWORK

Bayesian Modeling & Computations
Advanced Epidemiology
Probability & Mathematical Statistics
Statistics for Research
Nonlinear Optimization
Scientific Computing for Biologists
Mathematical Ecology I-IV

FEDERAL BADGES AND CLEARANCES

FEDERAL BADGES

CDC
HRSA

FEDERAL CLEARANCES

DoD Secret Clearance

EXPERIENCE

GUIDEHOUSE, LLP | HEALTH DATA SCIENCE - MANAGING CONSULTANT

March. 2022 – present | Remote

- Serves as a people manager for a team of 6 data scientists monitoring their projects, deliverables, and career growth including training.
- Manages over 20 projects across various health clients supporting a range of analytic and data science projects.
- Acts as the technical lead on business development proposals and communicating complex topics to various audiences

GUIDEHOUSE, LLP | HEALTH DATA SCIENCE - SENIOR CONSULTANT

May 2021 – March 2022 | Remote

- Provided health data science expertise for 6 different client portfolios
- Delivered PowerPlatform solutions, complex analyses, and communications products to convert data into actionable insights.
- Served as lead data manager and epidemiologist during emergency response, managed surge support resources, and used Agile for project management.

NATIONAL DEFENSE SCIENCE AND ENGINEERING GRADUATE FELLOWSHIP AND PROGRAM FOR EXCELLENCE AND EQUITY IN RESEARCH | RESEARCH FELLOW

August 2015 – May 2021 | Knoxville, TN

- Applied for and received federal funding for completing graduate research.
- Remained in compliance with all fellowship reporting requirements
- Attended relevant discourse meetings, presentations, and conferences to support scientific growth and knowledge.

RELEVANT EXPERIENCES

STATE DEPT OF HEALTH AND FAMILY SERVICES | ANALYTIC LEAD

The state implemented legislation in 2022 to improve the outcomes for skilled nursing facility residents. My team was recruited to analyze the impacts of these changes.

- Led a team to produce interim and a final reports appropriately merging, managing, and transforming disparate health data sets.
- Introduced novel analytic methods leveraging AI/ML for interrupted time series, difference in difference analysis, and network modeling.
- This report is being used to determine future legislative changes in this state and to influence changes in other states.

FEDERAL HEALTH AGENCY - CHRONIC CONDITION

SURVEILLANCE SYSTEM | DATA ANALYTICS AND VISUALIZATION LEAD

This federal agency established a system to understand the incidence and prevalence of chronic conditions that are not reportable to health departments.

- Served as the technical writer in the RFP response outlining how the data analytics and visualization team would meet the needs of the client.
- Led a team of analysts to ingest and process CMS Claims and IQVIA datasets to better estimate incidence and prevalence of conditions.
- Created a project management tool in PowerPlatforms to track, visualize, and report progress across workstreams.

PUBLICATIONS AND PRESENTATIONS

PUBLICATION TOPICS

Please see the Publications and Talks sections of my website for further information.