DUNCAN J. MAYER

DATA SCIENTIST | SOCIAL SCIENTIST | HEALTH SCIENTIST

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SUMMARY

I am a scientist with nearly a decade of experience using data to predict and understand complex behavior and phenomenon. I maintain good coding practices and am comfortable building, evaluating, and interpreting everything from well known algorithms to bespoke models. In addition to my methodological expertise, I bring domain expertise in organizational theory, neighborhood effects, as well as program and policy evaluation. I have produced research for a range of audiences including academic, government, and private sector stakeholders. You can find my full academic CV here.

PROGRAMMING: R (8 years) | SQL (4 years) | Stan (3 years) | Python (1 year)
STATISTICS: Hierarchical Models | Spatial Statistics | Longitudinal Data Analysis | Machine Learning | Experimentation

EDUCATION

Case Western Reserve University   Cleveland, OH
PhD in Social Welfare   (Expected August) 2023

Marywood University   Scranton, PA
Masters of Social Work   2017
Bachelors of Social Work   2015

RECENT PROFESSIONAL EXPERIENCE

BeVera Solutions   Atlanta, GA
Health Statistician (full-time)   Sept. 2022 – Present

- Led all statistical aspects of four white papers for the National Center for Infectious and Respiratory Disease focused on improving health sciences and evaluating the nation's COVID-19 response within federal agencies

Case Western Reserve University   Cleveland, OH
Research Fellow (full-time)   Aug. 2018 – June. 2022

- Led and managed all aspects of multiple scientific studies, publishing first and solo author papers including novel methodologies and state of the art applications.
- Provided methodological support and consultation for select research projects, affiliated with the The Center on Poverty and Community Development.
- Communicated methods and insights in over 5 technical talks at scientific conferences and over 150 hours of course lectures

The Institute for Public Policy and Economic Development   Wilkes-Barre, PA
Research Analyst (full-time)   July 2017 – June 2018

- Co-authored 11 funded research papers on a range of policy issues including health equity, health literacy, civic participation, and human services, leading data analysis in 5.
- Provided ad hoc data analysis to a variety government and corporate stakeholders

SELECT PAPERS

Simmer Down Now! A Study of Revenue Volatility and Dissolution in Nonprofit Organizations

- Quantified the effect of revenue volatility on dissolution in nonprofit organizations using archival tax records organizations (N = 2,126,894) and discrete time survival models (R, SQL)

Can a Measurement Error Perspective Improve Estimation in Neighborhood Effects Research? A Hierarchical Bayesian Methodology

- Developed a probabilistic model to incorporate sampling error into neighborhoods effects research using a full Bayesian Methodology (Stan, R)

Understanding Location and Density: A Spatial Analysis of Cuyahoga County's Nonprofit Sector

- Quantified the effects of location of nonprofit revenue using penalized spines (generalized additive models) showing the "best" locations are central in agglomeration clusters (R)