William W Godwin

Education

University of Washington 2015-2018

Seattle, WA

- Master of Public Health Health Metrics and Evaluation
- Post-Bachelor Fellowship at the Institute for Health Metrics and Evaluation
- GPA: 3.55/4.0

Emory University 2011-2015

Atlanta, GA

- Bachelor's of Science Neuroscience and Behavioral Biology
- Dean's list (top 20% of class), Fall 2012, Spring 2013, Fall 2013.
- GPA: 3.7/4.0

Work Experience

Research Analyst II, The Proctor Foundation at University of California, San Francisco San Francisco, CA

Jan 2019-Present

- Managed data for 3 large-scale (20,000 participant) randomized-controlled trials in sub-Saharan Africa that assess the effect of Azithromycin in reducing child mortality.
- Programmed 4 automated pipelines (in R and SQL) to perform daily quality checks and generate 50-page reports of field data. Contributed multiple chapters to internal Data Science book regarding the process.
- Forecasted trachoma distribution by training mixed effects linear models and GAMs on historical data and evaluating on 2018 data.

Research Fellow, Institute for Health Metrics and Evaluation Seattle, WA

Aug 2015-Aug 2018

- Constructed and evaluated Bayesian, spatial-temporal models to predict exposure to 5 risk factors (i.e. household air pollution) for >500 national and subnational locations globally for the Global Burden of Disease study.
- Efficiently wrangled large (>10 million rows) datasets and rasters in R and Stata using Linux-based parallel computing
- Created interactive visualizations and global maps to display risk factor and disease burden results in R's ggplot2 and Shiny. Presented preliminary models findings to internal collaborators.

Skills

 $\textbf{Statistical Analysis and Visualization:} \ \textit{R}, \ \textit{SQL}, \ \textit{Stata, Python, Git, Jupyter Notebooks}$

Refer to personal website for examples of analysis and interactive visualization

Publications

Walker, K., ..., **Godwin, W.**, Health Effects Institute & Global Burden of Disease Project Collaboration (2019). State of Global Air 2019-Special Report on Global Exposure to Air Pollution and its Disease Burden

Shupler, M., **Godwin, W**., Frostad, J., Gustafson, P., Arku, R., Brauer, M (2018). Global estimation of exposure to fine particulate matter (PM 2.5) from household air pollution.

Balakrishnan, K., ..., **Godwin, W. W.**, & India State-Level Disease Burden Initiative Air Pollution Collaborators (2018). The impact of air pollution on deaths, disease burden, and life expectancy across the states of India: the Global Burden of Disease Study 2017.

Gakidou, E., ..., **Godwin, W. W.,** & GBD 2016 Risk Factors Collaborators (2017). Global, regional, and national comparative risk assessment of 84 behavioural, environmental and occupational, and metabolic risks or clusters of risks, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016.