

# SHELBY L LEVEL

**Status:** Research Assistant

**Field:** Public Health, Data Analytics, Data Visualization

**Techs:** R, Git, GitHub, Shiny, SAS, SPSS

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**Website:** <https://www.shelbylevel.org>

**GitHub:** <https://www.github.com/shelbylevel>

## Summary

Health data analytics and visualization enthusiast looking for an opportunity to continue my learning journey with R.

## Education

**Master of Public Administration** - Ohio University

Jul. 2023 - May. 2024

- \* Graduate Research Assistant

**Bachelor of Science in Public Health** - University of Toledo

Aug. 2020 - May. 2023

- \* Magna cum laude

## Work Experience

**Research Assistant** - Ohio University, Voinovich School of Leadership & Public Service

Aug. 2023 - Present

- \* Assisted with gathering 2012-2021 Ohio Medicaid Assessment Survey (OMAS) data for the Appalachian addendum and the Disability addendum of the 2023-2025 State Health Assessment (SHA)
- \* Created a brief report for the Regional QI Hub Quality Improvement Project (QIP) - Diabetes Institute, Ohio University on the connections between social determinants of health and chronic health outcomes and behaviors at the county and census tract levels in Ohio
- \* Analyzing survey data, social vulnerability indices, other Census Bureau data, and mapped transportation options and ADA compliant resources in Athens county for the Creating Healthy Communities Ohio Hub (Athens City County Health Department)
- \* Beginning to build interactive dashboards and applications with Shiny

**Research Staff** - Ohio University, Ohio Alliance for Population Health (OAPH)

Jul. 2023 - Present

- \* Analyzing CDC WONDER mortality data to identify health disparities in Ohio across geographic regions, time, and demographics
- \* Authoring several reports (diabetes, firearm mortality, disease mortality, etc.) focused on Ohio most generally and Appalachian Ohio in particular for audiences within and outside the organization
- \* Providing ad hoc analytics and visualization support for OAPH members and clients

**Health Policy Intern** - Health Policy Institute of Ohio (HPIO)

Jan. 2023 - Jun. 2023

- \* Used secondary data to create data visualizations by Ohio's counties, zip codes, and census tract levels
- \* Provided ad hoc analytics and visualization support for HPIO members and clients
- \* Reviewed data entry, statistical calculations, and proper citation formatting for reports and other materials as part of quality control measures

**Data Analytics Intern** - Ohio University, Ohio Alliance for Population Health (OAPH)

Aug. 2022 - Dec. 2022

- \* Used R to gather and clean Census Bureau data, National Survey on Drug Use and Health (NSDUH) data, Ohio Department of Health (ODH) data (various), and CDC WONDER mortality data
- \* Profiled drug overdoses at the national, state, and county levels (Lucas County, Ohio in particular) with series of illustrations including tables, charts, maps

**Student Research Assistant** - University of Toledo, Department of Medicine

May. 2022 - Aug. 2022

- \* Replicated HIV-1 Protease molecular dynamics simulations in vitro
- \* Induced mutations in the HIV-1 Protease, purified each mutated protease including four mutations and one wild type, and ran small angle x-ray scattering (BioSAXS) to confirm protein confirmation in simulated data
- \* Learned wet lab techniques in recombinant DNA transformation and protein purification
- \* Presented project updates to primary investigator and research team through weekly team meetings

- \* Communicated with confirmed COVID-19 cases and close contacts to gather clinical information including symptom onset, testing date/results, and exposure
- \* Entered data so gathered into ODRS (Ohio Disease Reporting System) and Ohio Impact Statewide Immunization Information System (ImpactSIIS)
- \* Identified all close contacts of a confirmed case and determined exposure setting, vaccination status (using ImpactSIIS), and mask wearing
- \* Informed confirmed cases and close contacts about ODH COVID-19 quarantine and isolation guidelines

- \* Directed COVID-19 vaccination clinics at several locations across the county
- \* Assisted patients with filling out consent paperwork and ensuring the proper storage of these medical documents
- \* Entered patient information into the ArmorVax online system and completed patients vaccination cards
- \* Managed inventory of PPE and clinical supplies used at the vaccination clinics

## Data Projects

- \* This project involved comparing and exploring commonly used Social Determinants of Health (SDOH) indices and their association with health outcomes in Ohios counties and census tracts

- \* Assisted with gathering demographic, Health Professional Shortage Areas (HPSAs), Medically Underserved Areas (MUAs), physician workforce, health status, and health outcomes data for Maryland and the Baltimore City and County metro area

- \* Used SAS to clean and analyze data from Our World in Data and the Worldbank International Database
- \* Performed regression analyses to determine if COVID-19 vaccination rates significantly reduced new COVID-19 cases or excess mortality in approximately 185 nations during Fall of 2021

## Certifications

- \* National Commission for Health Education Credentialing Credential ID: 38648

- \* Credential ID: 46970379

## Leadership & Community Engagement

- \* Nominated to become a member of the 2022-2023 KLAR Leadership Academy through the University of Toledo Neff College of Business and Innovation
- \* Strengthened leadership, teamwork, communication, and critical thinking skills by participating in learning and service events on campus and within the local community

- \* Developed and filmed educational videos demonstrating emergency medicine techniques and procedures at the Interprofessional Immersive Simulation Center for healthcare workers and medical personnel in Ukraine

- \* Served as Vice Commodore and Executive Board member of the University of Toledo Sailing Club
- \* Participated in regattas and other sailing events through North Cape Yacht Club and around the country
- \* Attended regattas in Chicago, New York, and the US Naval Academy in Annapolis during the Fall 2021 season

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**Vice President** - Eta Sigma Gamma Honor Society

Mar. 2021 - May. 2022

- \* Served as Vice President and Executive Board Member of the Iota chapter of the Eta Sigma Gamma public health honor society at the University of Toledo
- \* Created flyers, social media posts, and other digital media for the organization including a virtual BINGO board that raised over \$1,000 to feed children in need within Toledo