# Jacob Sussman

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## Education

**Duke University**, Durham, NC — 2025–
Ph.D., Biostatistics

**The University of Utah**, Salt Lake City, UT — 2021-2025
B.S., Applied Math
H.B.S., Physics, *Honors Thesis*: "Spatio-temporal Models of Valley Fever Incidence Using INLA and Stochastic PDE'S"

## Research Experience

**Evo-Epi Lab, The University of Utah** — 2023-2025
Research Assistant
Mentor: Dr. Katharine Walter

Carried out applied epidemiology research, focused on TB transmission as it relates to environmental factors in high incidence settings. Tasks have involved cleaning data, analyzing data, performing spatial analysis, generating maps/figures, and communicating work through writing and presentation. Currently working on spatial models of Valley fever incidence in the Western U.S. using Bayesian hierarchical models implemented with integrated nested Laplace approximation.

**Colorado Summer Institute in Biostatistics** — 2024
Mentor: Dr. Brandie Wagner

As part of the NIH-funded Summer Institute in Biostatistics at the University of Colorado Anschutz, worked with other students to create a partial latent class model built on clinical markers as a computational approach to determine the etiology of an individual's pneumonia infection.

**University of Utah Department of Physics** — 2022

Worked in the Boehme lab on a semester-long project learning to fabricate and characterize OLED devices in order to study spin electronics in varying conditions.

## Honors/Awards

**Student Research Lightning Talk Competition, 1st place**, Wilkes Climate Summit — 2025
**Wilkes Scholar**, The Wilkes Center for Climate Science & Policy — 2024

**Global Health Case Competition, 1st place**, The University of Utah School of Medicine 2024
**UROP Scholar**, University of Utah Office of Undergraduate Research 2023
**Dean's List (all semesters)**, The University of Utah College of Science 2021-2025

## Papers

* indicates co-first authorship.

[1] Medina, A*; **Sussman, J***; Sosa, N; Valdez, M; Andrews, JR; Croda, J; Sanabria, GE; Sequera, G; Aguirre, S; Walter, KS. "The concentration of tuberculosis within Paraguay's incarcerated and Indigenous populations, 2018-2022" (Preprint medRxiv, accepted to the Lancet Regional Health - Americas)

## Presentations

Wilkes Climate Summit, The Wilkes Center for Climate Science & Policy, Salt Lake City, UT. "Modeling Valley Fever Endemicity with INLA and Mammal Distributions" (poster, "lighting" talk) 2024

Bay Area Tuberculosis Science Symposium, UCSF Mission Bay, San Francisco, CA. "Tuberculosis in Paraguay is Concentrated in Vulnerable Populations" (poster) 2024

CoSIBS Project Symposium, CU Anschutz, Denver, CO. "PPEARL - Pediatric Pneumonia Etiology Analysis applying an R Latent model" (poster) 2024

Immunology, Inflammation, and Infectious Disease (3i) Symposium, The University of Utah, Salt Lake City, UT. "The Spatial Concentration of Tuberculosis in Paraguay's Marginalized Populations" (poster) 2024

Undergraduate Research Symposium, The University of Utah, Salt Lake City, UT. "The Spatial Concentration of Tuberculosis in Paraguay's Marginalized Populations" (poster) 2024

## Teaching/Mentoring

**Teaching Assistant**, Honors 2951: Global Health, The University of Utah Honors College 2023
**Peer Mentor**, Honors first-year learning community, The University of Utah Honors College 2022-2025

## Service

**Bennion Center**, The University of Utah 2024

Participated in "Mass Incarceration and Abolition" week-long service break in Oakland, CA. Volunteered with Legal Services for Prisoners with Children, Flying Over Walls, Root and Rebound, and the San Francisco Public Library.

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Last updated: August 26, 2025