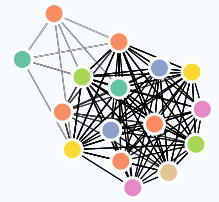


# MEGAN HOLLISTER MURRAY



## EDUCATION

Current  
|  
2017

- **Ph.D. Candidate, Biostatistics**  
Vanderbilt University

📍 Nashville, TN

- False Discovery rates, Machine Learning methods, and Second Generation p-values
- Expected graduation: Summer 2022

2017  
|  
2013

- **B.S., Mathematics**  
Baylor University

📍 Waco, TX

- Honors Thesis: Multi-Parameter Functions in Chaotic Dynamical Systems

## RESEARCH EXPERIENCE

Current  
|  
2020

- **Graduate Research Assistant**  
Vanderbilt University

📍 Nashville, TN

- Identifying determinants of racial disparities in lung cancer stage
- Contributed to the research findings and writing of a \$1.25M multi-investigator federal grant

2020  
|  
2018

- **NIH TL1 Trainee**  
Vanderbilt University

📍 Nashville, TN

- An evaluation of machine learning and classical statistical methods for discovery in large-scale translational data.
- Compared machine learning methods and statistical inference methods for discovery in large-scale translational data. Found that traditional methods perform as well as machine learning methods.

2019  
|  
2018

- **Statistical Evidence in Data Science Lab**  
Vanderbilt University

📍 Nashville, TN

- “Large-Scale Inference” by Bradley Efron
- A small group of students and professors read through and discussed in detail the first 6 chapters of Efron’s book along with a selection of complimentary papers.

2017  
|  
2015

- **Chaos Theory Lab**  
Baylor University

📍 Waco, TX

- “An Introduction to Chaotic Dynamical Systems” by Robert L. Devaney
- Lab group carefully read and proved theorems and propositions from this book. Dr. Brian Raines guided us through the theory.

2016

- **Applied Mathematics Undergraduate Researcher**  
North Carolina State University

📍 Raleigh, NC

- Applied Mathematics Research Experience for Undergraduates
- Mathematically modeled chemical absorption and metabolism through the skin. On a team of four undergraduate students mentored by a biochemist from the EPA.

## CONTACT



[murraymegan25@gmail.com](mailto:murraymegan25@gmail.com)

[github.com/murraymegan](https://github.com/murraymegan)

[meganhmurray.com](https://meganhmurray.com)

[in murraymegan25](#)

## LANGUAGE

### SKILLS

R

Stata

Bash

Python

C++

*The source code is available [on my GitHub](#).*

*Last updated on 2020-11-11.*



## TEACHING EXPERIENCE

Current  
|  
2019



### **Probability & Statistical Inference**

Vanderbilt Data Science Department

📍 Nashville, TN

- Head TA
- Masters course covers the fundamentals of probability theory and statistical inference.

2020



### **Contemporary Statistical Inference**

Vanderbilt Biostatistics Department

📍 Nashville, TN

- TA and lectured
- Graduate course focuses on the goal(s) of statistical tools for inference.



## SELECTED PUBLICATIONS, POSTERS, AND TALKS

2020



### **Factors Influencing Precision Medicine Knowledge and Attitudes**

PLOS One Paper

- Authored with Rohini Chakravarthy, Sarah Stallings, Michael Williams, Mario Davidson, Juan Canedo, and Consuelo H. Wilkins.
- Accepted and waiting publication. <https://doi.org/10.1101/2020.06.04.133942>

2020



### **False Discovery Rate Computation: Illustrations and Modifications**

Arxiv Paper

- Authored with Jeffrey D. Blume.
- In process of being submitted to the R Journal. <https://arxiv.org/abs/2010.04680>

2019



### **An evaluation of machine learning and classical statistical methods for discovery in large-scale translational data.**

ENAR Conference Short Oral Presentation

📍 Philadelphia, PA

2019



### **An evaluation of machine learning and classical statistical methods for discovery in large-scale translational data.**

ACTS Conference Poster Presentation

📍 Washington D.C.

- Ranked in top 25% of posters

2017



### **Modeling Dermal Diffusion and Metabolism for Consumer Products**

Joint Mathematics Meeting Poster Presentation

📍 Atlanta, GA

- Ranked in top 10% of posters



## AWARDS AND SCHOLARSHIPS

2020

|  
2017



### **The University Graduate Fellowship**

Vanderbilt University

📍 Nashville, TN

- Awarded by the Graduate School to highly qualified students entering study for the PhD or the master's degree.

2020

|  
2019



### **Distinguished Teaching Assistant**

Vanderbilt Biostatistics Department

📍 Nashville, TN

- Awarded each year based on student recommendations for a helpful and intelligent TA.