

Brian D. Christman

University of Mississippi Medical Center | Department of Data Science
bchristman@umc.edu | (610) 999-4489

EDUCATION

- 2021-Present University of Mississippi Medical Center, Jackson, Mississippi
PhD student in Biostatistics and Data Science
- 2017-2021 Rhodes College, Memphis, Tennessee
Bachelor of Science in Biomathematics
Minor in Urban and Community Health
Minor in Music
Honors: *cum laude*

AWARDS & ACHIEVEMENTS

- 2021 Omicron Delta Kappa National Leadership Honor Society
- 2019-2021 TriBeta Biology Honor Society
- 2019-2021 Order of Omega Greek Honor Society

SKILLS

- Languages English (native); Spanish (Beginner)
- Programming R (advanced); MATLAB (intermediate); Python (intermediate); STATA (intermediate);
SAS (proficient); SQL (proficient)

GRADUATE RESEARCH EXPERIENCE

- 2021- Present **Comparative Performance of Indirect Treatment Comparison Estimators**
Advisor: Dr. William Hillegass, University of Mississippi Medical Center (UMMC)
- 2021-Present **Parametric and Machine Learning Risk Prediction of Youth Suicidality in Mississippi to Inform Prevention Strategies**
Advisors: Drs. Yufeng Zheng and William Hillegass, UMMC

UNDERGRADUATE RESEARCH EXPERIENCE

- 2020-2021 **Developing a Demographic Model of the Endangered Florida Native Bromeliad *Tillandsia fasciculata***
Advisor: Dr. Erin Bodine, Rhodes College

- 2020 **Survey Analysis for Reaction to Tragic Events**
Advisor: Dr. Ibrahim Abdelrazeq, Rhodes College
- 2019-2021 **Assessing Movement Patterns through a 1450 BC Pseira Household**
Advisors: Drs. Miriam Clinton and Ibrahim Abdelrazeq, Rhodes College
- 2019-2021 **Modeling Population Dynamics of the American chestnut (*Castanea dentata*) in west Tennessee**
Advisor: Dr. Robert Laport, Rhodes College
- 2019-2020 **Prostate Cancer Disparities in the Mid-South Region**
Advisor: Dr. Jay Fowke, University of Tennessee Health Science Center
- 2018-2020 **A Demographic Model of the Endangered Florida Native Bromeliad *Tillandsia utriculata***
Advisor: Dr. Erin Bodine, Rhodes College
- 2018-2019 **Assessing the Effects of Cryopreservation on the Geometric Morphometrics of Dusky Gopher Frog Sperm**
Advisor: Kristin Hinkson, Memphis Zoo
- 2018-2019 **Habitat use by Loggerhead Shrikes (*Lanius ludovicianus*) in the Lower Mississippi Alluvial Valley**
Advisor: Dr. Michael Collins, Rhodes College

PUBLICATIONS

Laport R.G., Brookover Z.S., **Christman B.D.**, Ng J., Craddock J.H. Environmental niche and demographic modeling of remnant American chestnut near the southwestern range limit in southwest Tennessee and north Mississippi. (*Under Review*)
<https://www.biorxiv.org/content/10.1101/2021.09.10.459451v1.abstract>

Brookover Z.S., Campbell A.M., **Christman B.D.**, Davis S.L., and Bodine E.N. 2020. A Demographic Model of the Endangered Florida Native Bromeliad *Tillandsia utriculata*. *Spora: A Journal of Biomathematics*: Vol. 6, 1–15. <https://ir.library.illinoisstate.edu/spora/vol6/iss1/2>

RESEARCH PRESENTATIONS

Bodine E.N., Brookover Z.S., **Christman B.D.**, Davis S.L., Kohnke A. Oral: Can Modeling Save Florida's Native Bromeliads from the Evil Weevil? International Symposium on Biomathematics on Biomathematics and Ecology Education and Research. Conference Moved Online. November 2020.

Brookover Z.S., **Christman B.D.**, and Laport R. Poster: Modeling Population Dynamics of the American chestnut (*Castanea dentata*) Near the Historical Range Limit in west Tennessee. Botany 2020. Conference Moved Online. July 2020.

Brookover Z.S., Campbell A.M., **Christman B.D.**, Davis S.L., and Bodine E.N. Poster: A Demographic Model of the Endangered Florida Native *Tillandsia utriculata*. International Symposium on Biomathematics and Ecology Education and Research. La Crosse, WI. October 2019.

Brookover Z.S., Campbell A.M., **Christman B.D.**, Davis S.L., and Bodine E.N. Poster: Using Stage-Structured Matrix Models to Understand Demographic Impact of Life History Strategies in Florida *Tillandsia*. Rhodes Symposium. Memphis, TN. April 2019.

Christman B.D., Dorn P., Popescu, M., and Collins M. Oral Presentation: Habitat use by Loggerhead Shrikes (*Lanius ludovicianus*) in the Lower Mississippi Alluvial Valley. Memphis Chapter - Tennessee Ornithological Society. Memphis, TN. February 2019.

Christman B.D., Donahue E., Boves T., Bryant L., Dorn P., Levesque C., O'Reilly A., Popescu M., Raibley R., Wessels J., Worm A., Youtz J., and Collins M. Poster: Habitat use by Loggerhead Shrikes (*Lanius ludovicianus*) in the Lower Mississippi Alluvial Valley. International Ornithological Congress. Vancouver, Canada. August 2018.

Christman B.D., Dorn P., Levesque, C., O'Reilly A., Popescu M., and Collins M. Poster: Habitat use by Loggerhead Shrikes (*Lanius ludovicianus*) in the Lower Mississippi Alluvial Valley. Rhodes College Undergraduate Research and Creative Activity Symposium. Memphis, TN. April 2018.

TEACHING EXPERIENCE

2022	Guest Lecture on Regression Analyses (Conj 612), UMMC School of Medicine
2021	Manuscript Editor for Math Modeling (Math 315), Rhodes College
2018-2020	Teaching Assistant for Applied Calculus (Math 115), Rhodes College
2017-2019	Teaching Assistant for Discrete Mathematics with Biological Applications (Math 214), Rhodes College

SCHOLARSHIPS, FELLOWSHIPS, AND GRANTS

2021-Present	Dean's Scholarship, University of Mississippi Medical Center
2019	Biomathematics Student Research Fellowship, Rhodes College
2018	Biology Student Research Fellowship, Rhodes College
2018	Conservation and Research Grant, Tennessee Ornithological Society
2017-2021	Diehl Scholarship, Rhodes College
2017-2021	Music Scholarship, Rhodes College
2017-2021	Rhodes Grant, Rhodes College

WORK HISTORY

2021 Student Project Analyst, University of Mississippi Medical Center
2020 Health Equity Intern, Rhodes College
2019-2020 Preventive Medicine Intern, University of Tennessee Health Science Center
2019-Present Private Mathematics Tutor, Memphis, TN

LEADERSHIP ROLES

2021-Present Department of Data Science Vice Chair, University of Mississippi Medical Center
2020 Secretary for the Order of Omega Greek Honor Society
2020 Alumni Relations Chairman of the Sigma Nu Fraternity
2019-2021 Vice President of Aftermath (Mathematical Association of America - Student Chapter at Rhodes College)
2019-2020 President and Founder of Roots (Botanical Society of America - Student Chapter at Rhodes College)
2018-2019 Scholarship Chairman of the Sigma Nu Fraternity
2018-2019 Scheduler for Rhodes Radio

COMMITTEE INVOLVEMENT

2021-2022 School of Medicine – Curriculum – System-Based Practice Subcommittee Student Member, University of Mississippi Medical Center

COMMUNITY OUTREACH

2021-Present Volunteer for the Myrlie Evers-Williams Institute for the Elimination of Health Disparities
2020 Telehealth Operator for the Wellness & Stress Clinic of Memphis
2019-2021 Ambassador for the International Children's Heart Foundation
2018-2019 Volunteer Research Assistant at the Memphis Zoo
2017-2020 Volunteer at the Memphis Zoo

ACTIVITIES

Freelance Musician - Tenor Saxophone