Benjamin R. Gochanour

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EDUCATION

University of Oklahoma Health Sciences Center — Oklahoma City, OK
Master of Science, Biostatistics — August 2019-May 2021 (Expected)
Thesis: "A Nonparametric Multiply Robust Multiple Imputation Method for Causal Inference"
Graduate GPA: 4.0

University of Oklahoma — Norman, OK
Bachelor of Science, Mathematics — August 2017-May 2021 (Expected)
Minors in *Spanish, Medical Humanities*
Undergraduate GPA: 3.96

RESEARCH EXPERIENCE

Graduate Research Assistant — January 2020-Present
University of Oklahoma Health Sciences Center
Hudson College of Public Health

Served as Team Leader for Digital Conversion and assisted with data analysis and survey editing for the Strong Heart Study (SHS), a longitudinal study of cardiovascular disease and its risk factors in American Indians.

Research Team Member — April 2020-Present
University of Oklahoma Health Sciences Center
Hudson College of Public Health
COVID-19 Community Research

Led data analysis efforts for student-led team investigating the impact of COVID-19 on Oklahoma City's housing insecure.

Research Assistant — Fall 2018-Present
University of Oklahoma
Corix Plains Institute

Model bird migration in R based on extrinsic or intrinsic markers. Simulate migration using environmental data and machine learning methods, including decision trees and random forest models. Write manuscripts and prepare figures for presentations and publications.

Summer Intern — June 2019-August 2019 &
Johns Hopkins University Applied Physics Laboratory — December 2019-January 2020
Dept. of Health Data Science and Analytics

Built and evaluated deep learning and conventional machine learning models to pinpoint the causes of physiological episodes on naval training flights. Assisted with the design of a dashboard-based version of ESSENCE (Electronic Surveillance System for the Early Notification of Community Based Epidemics) targeted towards developing nations.

Research Consultant January 2019 – December 2019
University of Oklahoma
Public Health Discussions

Developed and implemented a mental health training module for undergraduates at the University of Oklahoma based off student surveys, interviews with faculty/clinical professionals, and a critical review of existing research.

PUBLICATIONS

Submitted:

B. Gochanour, S. Chen, L. Beebe. and D. Haziza. 2020+. A Multiply Robust Multiple Imputation Method for Causal Inference. Submitted to *Biometrics*

B. Gochanour, J. Alcantara, P. Cimprich, J. F. Kelly, and A. Contina. 2020+. Filling the Gap: Molting Behavior of Colima Warblers and Research Opportunities for Understudied North American Songbirds. Submitted to *The Southwestern Naturalist*

Working:

B. Gochanour, S. Chen, L. Beebe. and D. Haziza. 2020+. Bayesian Multiply Robust Estimation for Causal Inference.

B. Gochanour, A. Contina. (2020+). Modeling Migration in Warblers.

PRESENTATIONS

Presenting author(s) are indicated with an asterisk (*)

B. Gochanour*, S. Chen., L. Beebe. and D. Haziza. 2020. A Nonparametric Multiply Robust Multiple Imputation Method for Causal Inference. Joint Statistical Meetings (Contributed Poster Session). Virtual Conference.

A. Contina*, **B. Gochanour**, J.L. Alcantara, and M.B. Wunder. 2020. Stable Isotopes in Conservation Biology: Case Studies in Migratory Birds. The North American Congress for Conservation Biology (NACCB), Denver, Colorado.

B. Gochanour*, S. Chen., L. Beebe. and D. Haziza. 2020. A Nonparametric Multiply Robust Multiple Imputation Method for Causal Inference. Scheduled for poster presentation at the 2020 Graduate Research Education and Technology (GREAT) symposium, canceled due to COVID-19 pandemic.

B. Gochanour*. 2019. Investigating Math Motivation and Math Anxiety in Undergraduate Students. University of Oklahoma, Research in Undergraduate Math Education Seminar. Norman, Oklahoma.

B. Gochanour*, L. Wiseman, A.M. Nguyen, P. Cimprich, M. Pandit, A. Contina, J.F. Kelly. 2018. The Effect of Handling Time on Boldness in Dark-eyed Juncos. First Year Research Experience Presentation Session. Norman, Oklahoma.

SKILLS

Programming and Machine Learning

Strong experience programming in R, Python, SAS, SQL, JMP, and MATLAB. Experience with supervised and unsupervised machine learning methods in Python and R, and deep learning/recurrent neural network models in Python.

Statistics and Data Analysis

Experienced with regression modeling, time series analysis/forecasting, missing data analysis, survey data analysis, causal inference, and sampling methodology. Skilled with spatial modeling and agent-based modeling/simulations. Strong data visualization skills in R, Python, and SAS.

Research

Design research studies based on a critical evaluation of existing work. Construct and present compelling manuscripts and research posters. Collaborate with researchers on statistical methodology and applied research projects.

LEADERSHIP & AWARDS

Vice President June 2020-May 2021
Biostatistics and Epidemiology Student Association
Hudson College of Public Health
University of Oklahoma Health Sciences Center

Richard V. Andree Memorial Mathematics Scholarship April 2018
Mathematics Department
University of Oklahoma

National Merit Scholar March 2017
National Merit Scholarship Corporation

RELEVANT COURSEWORK

Applied Statistical Methods, Applied Regression Analysis, Biostatistical Methods I & II, Principles of Epidemiology I & II, Sampling Theory and Methods, Nonparametric Data Analysis, Analysis of Frequency Data, Longitudinal Data Analysis

PROFESSIONAL ASSOCIATIONS

American Statistical Association

REFERENCES

Sixia Chen, Ph.D.
Associate Professor
Dept. of Biostatistics and Epidemiology
Hudson College of Public Health
University of Oklahoma Health Sciences Center
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Andrea Contina, Ph.D.
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