Benjamin R. Gochanour

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EDUCATION

UNIVERSITY OF OKLAHOMA & UNIVERSITY OF OKLAHOMA HEALTH SCIENCES CENTER
Norman, OK & Oklahoma City, OK
Bachelor of Science, Mathematics, and Master of Science, Biostatistics, May 2021
Minors in *Spanish, Medical Humanities*
Thesis: "A Multiply Robust Multiple Imputation Method for Causal Inference"
GPA: 3.96

INTERESTS

Interested in how novel research methods and statistical analysis can provide solutions to complex problems within medicine, public health, and other disciplines.

SKILLS

PROGRAMMING AND MACHINE LEARNING

- Skilled with R, Python, SAS, SQL, JMP, and MATLAB
- Experienced with supervised and unsupervised machine learning methods using Python's scikit-learn library
- Experienced with deep learning/recurrent neural network models using Python's keras library

STATISICS AND DATA ANALYSIS

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

RESEARCH

- Design research studies based on a critical evaluation of existing work
- Analyze data and construct compelling research posters and manuscripts
- Present research to fellow researchers and students across various disciplines

RELEVANT EXPERIENCE

University of Oklahoma Health Sciences Center, Biostatistics and Epidemiology Student Association, *Vice President*, August 2020-Present

- Help lead organization devoted to supporting biostatistics and epidemiology master's and PhD students

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

- Assist in data analysis and writing manuscripts
- Assist in development of data dictionaries and other research documentation

Johns Hopkins University Applied Physics Laboratory, Health Data Science and Analytics Group, *College Summer Intern*, June 2019-August 2019; December 2019-January 2020

- Performed data linkage, data cleaning, correlation analysis, and built machine learning models to pinpoint the causes of physiological episodes on naval training flights

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

- Model bird migration in R using stable isotopes, geolocator, and observational data
- Paper under review for publication in *The Southwestern Naturalist*: "Filling the Gap:

Molting Behavior of Colima Warblers and Research Opportunities for Understudied North American Songbirds"
- Use Stacks computational pipeline for genomic analysis

University of Oklahoma, Public Health Discussions, Research Consultant, Spring 2019-Fall 2019
- Developed and implemented a mental health training module for undergraduates at OU based off student surveys, interviews with faculty/clinical professionals, and independent research

University of Oklahoma, First Year Research Experience, *Participant with Kelly Lab*, Fall 2017-Spring 2018
- Designed and conducted a study on the effect of handling on the rate of return for Dark-eyed juncos at a study site on OU's campus
- Conducted field work (banding and re-sighting birds), lab work (purifying and analyzing DNA from blood), and data analysis work (using R)
- Developed and presented a research poster summarizing findings

RELEVANT COURSEWORK

- MATH 4753: Applied Statistical Methods
- MATH 4773: Applied Regression Analysis
- BSE 5163: Biostatistical Methods II
- BSE 5603: Sampling Theory and Methods

ACADEMIC HONORS

- Presidential Honor Roll
- National Merit Scholar
- Richard V. Andree Memorial Mathematics Scholarship