






# Colton Gearhart

## PROFESSOR

-  Muncie, IN, USA
-  gearhart.colton.work@gmail.com
-  coltongearhart.github.io/myportfolio/
-  @coltongearhart
-  @coltongearhart

## TECHNICAL SKILLS

- Data handling in R, including extensive use of tidyverse packages.
- Data visualization using R, including ggplot, plotly and shiny applications.
- Creating dynamic reports and websites in Quarto.
- Creating documents in LaTeX.
- Git and GitHub.
- Designing and implementing simulation studies / computational experiments in R.
- Bayesian modeling via R Stan.
- Modeling in R, including model selection and data reduction techniques.
- Data management in SAS and SQL.

## LANGUAGES

- Native English
- Upper Intermediate Spanish

## WORK EXPERIENCE

### PROFESSOR

#### *Ball State University*

Aug 2022 - Present

- Design and implement an asynchronous course in data visualization.
- Lead students through undergraduate probability and statistical theory courses and a quantitative reasoning course.
- Prepare all course materials such as syllabi, guided notes, and homework assignments.
- Deliver content lectures and facilitate classroom discussions.
- Serve on the Undergraduate Programs Committee.

Jan 2022 - Aug 2022

#### *Columbus State & Cincinnati State Community Colleges*

- Plan, prepare, and conduct introductory statistics courses.
- Lead students through a quantitative reasoning course which emphasizes numeracy, model-building, probability and statistics in a real-world context.

### DATA MANAGER

Apr 2021 - Jul 2021

#### *STATKING Clinical Consulting*

- Perform data entry, quality control checks and creation of source documents for clinical trials.

## EDUCATION

#### *Miami University*

Aug 2018 - May 2020

#### *Master of Science in Statistics*

#### *Northern Kentucky University*

Aug 2015 - May 2018

#### *Bachelor of Science in Mathematics & Statistics*

## RESEARCH EXPERIENCE

#### *Master's Project: Sample size requirements for fitting multiple regression models*

- Literature presents many different sample size rules of thumb when it comes to carrying out a multiple linear regression study. This research project used simulation to determine the validity of these rules under varying circumstances and how simulation can be used to help size a study aimed at prediction. A Monte Carlo simulation in R was performed to assess the predictive accuracy of multiple linear regression models that are trained on various sample sizes according to some previously proposed conventional rules.

#### *Greaves Undergraduate Summer Research Fellowship*

- Gearhart, C. (2018), Implementation of Gibbs Sampling within Bayesian Inference and its Applications in Actuarial Science, SIAM Undergraduate Research Online, Vol. 11.
- This research project investigated a Bayesian approach within an actuarial context, with focus on a particular Markov chain Monte Carlo method, Gibbs sampling. The properties of Gibbs sampling were demonstrated and then applied within R through simulation. Extensions of this project include creating an interactive shiny app in R to demonstrate the results and replicating the Gibbs sampling algorithm in SAS.