

Theophilus Anim Bediako

Department of Statistical Science, Baylor University

theophilus.animbediako@gmail.com | [Website](#) | [LinkedIn](#)

EDUCATION

PhD Candidate in Statistics

Summer 2023–present

Baylor University (GPA: 3.94/4.00)

Waco, TX

My dissertation covers Bayesian methods for underreported count data, subgroup selection, and predictive probability of success.

M.S. in Statistics

Summer 2023–Spring 2025

Baylor University (GPA: 3.94/4.00)

Waco, TX

M.S. in Mathematics and Statistics

Fall 2021–Spring 2023

South Dakota State University (GPA: 3.68/4.00)

Brookings, SD

Research paper: *Covariance-Based Clustering for Classification*

B.Ed. in Mathematics

Fall 2016–Fall 2020

University of Cape Coast (GPA: 3.90/4.00)

Cape Coast, Ghana

RESEARCH INTERESTS

Bayesian inference; subgroup analyses and selection bias in clinical trials; meta-analysis; computational statistics; machine learning (clustering and classification); bioinformatics

PUBLICATIONS AND MANUSCRIPTS

Published work

Abrefah, E., Asare, M., Kwon, E., **Anim Bediako, T.**, & Perry, K. (2026). Association between patient-provider relationship quality and colorectal cancer screening uptake among US adults. *Cureus*, 18(6), e111352. [doi:10.7759/cureus.111352](https://doi.org/10.7759/cureus.111352).

Submitted for publication

Anim Bediako, T., Roberman, J. L., Barth, J., & Stamey, J. D. BUCM: An R package for Bayesian modeling of one- and two-sample count data with underreporting. [Corresponding software: BUCM](#).

Manuscripts in preparation

Anim Bediako, T., Adewale, A., Dreverts, M., & Barth, J. Bias-adjusted calculation of predictive probability of success for a best-performing subgroup.

SOFTWARE

Anim Bediako, T. *BUCM: Bayesian Underreported Count Modeling* (Version 1.0.0) [R package]. Author and maintainer.

One- and two-sample Poisson, negative binomial, and zero-inflated Poisson models for underreported counts; JAGS-based estimation, diagnostics, and model comparison.

Implements the methods in the [corresponding BUCM manuscript](#), submitted for publication.

[Source \(v1.0.0\)](#) | [Documentation](#) | [User guide](#)

RESEARCH AND CONSULTING EXPERIENCE

Lead Collaborator, Statistical Consulting Center Summer 2024–present
Department of Statistical Science, Baylor University Waco, TX

- Associate statistical collaborator, Baylor Center for Disability and Flourishing
- Analyzed 12+ client projects in medicine, public health, and geoscience
- Advise clients on study design, method validation, and interpretation of results

Statistical Consultant Summer 2025–present
Alcon Research & Baylor Statistical Science Waco, TX

- Develop a Shiny app for single-study meta-analytic predictions and probability of success
- Develop methods for subgroup heterogeneity and selection bias in ophthalmology trials

Graduate Data Science and Research Intern Summer 2026
Institute of Mathematical and Statistical Innovation Chicago, IL

- Research placement: Bonthuis Lab, Veterinary Medicine, University of Illinois Urbana-Champaign
- Conducted computational and statistical analyses for genomic-imprinting research
- Performed gene and allele differential analyses with false discovery rate correction
- Analyzed correlations and clustering of cell types and imprinted genes

TEACHING EXPERIENCE

Baylor University Fall 2023–Fall 2025
Department of Statistical Science Waco, TX

Guest Instructor, Research Methods (Professor LesLee K. Funderburk), Fall 2025

Grader, Theory of Statistics II, Fall 2024

Graduate Teaching Assistant, Introduction to Statistical Methods, Fall 2023–Spring 2024

Led weekly supplemental instructional sessions

Graduate Teaching Assistant Fall 2021–Spring 2023
South Dakota State University Brookings, SD

SAS Programming: Spring 2023

College Algebra: Fall 2021 and Fall 2022

Introduction to Statistics: Spring 2022

Teaching Assistant Fall 2020–Summer 2021
Department of Mathematics, University of Cape Coast Cape Coast, Ghana

Ordinary Differential Equations and Further Calculus

Field Experience in Mathematics Teaching Fall 2019
Adisadel College Cape Coast, Ghana

Core and Elective Mathematics

PRESENTATIONS AND ACADEMIC ACTIVITIES

- Attendee, R/Pharma Workshop, 2026
- Invited talk, Alcon Research Joint Statistical Meeting
- Poster presentation, Conference of Texas Statisticians
- Podium talk, Baylor Scholar and Research Week
- Poster presentation, International Indian Statistical Association Annual Conference, 2023
- *Covariance-Based Clustering for Classification*, poster, SDSU Data Science Symposium, 2023
- Session chair, Methods in Statistics and Data Science, SDSU Data Science Symposium, 2023
- Attendee, SDSU Data Science Symposium, 2022

ADDITIONAL EXPERIENCE AND TRAINING

MIS Analytics Intern, Risk Management

Summer 2022

First PREMIER / PREMIER Bankcard

Sioux Falls, SD

SQL call-data analysis, Power BI attrition dashboards, and retention proposals for management

Data Science Bootcamp Participant

May–June 2026

Institute of Mathematical and Statistical Innovation

Chicago, IL

Training in R/Python data analysis, machine learning, and high-performance and parallel computing

HONORS AND AWARDS

- NSF-funded IMSI Summer Bootcamp, May–June 2026
- Baylor University Transition Fellowship
- Second place, graduate student poster competition, SDSU Data Science Symposium, 2023
- SDSU Graduate School and IISA travel awards for IISA 2023

ACADEMIC SERVICE AND LEADERSHIP

- Graduate Student Association representative, Baylor Statistical Science, Fall 2025–present
- Volunteer, SDSU Data Science Symposia, 2022–2023
- International Students Diplomat, South Dakota State University
- Deputy Secretary, Apostolic Church Ghana Students and Associates, UCC chapter
- Long-jump official, PREMIER Bankcard / City of Sioux Falls track meets

TECHNICAL COMPETENCIES

Programming: R/RStudio (reveal.js, Quarto, R Markdown, package and Shiny app development), Python, SQL, SAS, zsh

Bayesian computation: JAGS, Stan

Version control: Git/GitHub ([TheoAnim](#))

Applications: $\text{\LaTeX}$, Quarto, RStudio, Positron, Microsoft Office

PROFESSIONAL MEMBERSHIPS

American Statistical Association; Society for Industrial and Applied Mathematics; Royal Statistical Society

PERSONAL INTERESTS

Volunteering and nature photography