Samuel Anyaso-Samuel

Contact Information

Department of Biostatistics
2004 Mowry Road, 5th Floor CTRB
Gainesville, FL 32611-7450

Phone: (208) 216 - 9207
email: sanyasosamuel@ufl.edu
Website: samuelanyaso.github.io

Education

Aug. '19 - Present	Ph.D. BIOSTATISTICS, **University of Florida, USA** Thesis: "Some contributions to the analysis of cluster-correlated data when cluster size is informative" Advisor: Somnath Datta, Ph.D.
Aug. '17 - May '19	M.Sc. MATHEMATICS (concentration in Statistics), **Boise State University, USA** Thesis: "Dynamic Sampling Versions of Popular SPC charts for Big Data Analysis" Advisor: Partha Mukherjee, Ph.D.
Nov. '09 - Dec. '14	B.Tech. STATISTICS, **Federal University of Technology, Owerri, Nigeria** Thesis: "Some Contributions to the interpretation of Fuzzy Regression Intervals" Advisor: Benson Onoghojobi, Ph.D.

Research Interests

Survival analysis & Multistate models; Clustered Data; Metagenomics; Microbiome Data; Bioinformatics; Statistical Machine Learning; Statistical Process Control; Fuzzy Regression

Professional Experience

Aug. '20 - Present	**NF/SG VHS Malcolm Randall VA Medical Center, Gainesville, Florida** *Biostatistician*
Aug. '19 - Present	**Department of Biostatistics, University of Florida** *Graduate Research and Teaching Assistant*
Aug. '17 - May '19	**Department of Mathematics, Boise State University** *Graduate Teaching Assistant*

Teaching Experience

	UNIVERSITY OF FLORIDA, Department of Biostatistics
FA '22	*Instructor*, STA 6177: Applied Survival Analysis
Sp '21, '22	*Guest lecturer (2 lectures)*, PHC 7066: Large Sample Theory
Su '21	*Teaching Assistant*, PHC 6937: Bayesian Biostatistical Methods
Sp '21, '22, FA '21	*Teaching Assistant*, PHC 6089: Pubic health computing
Sp '21	*Teaching Assistant*, PHC 6937: Fontiers in Biostatistics
Su '20	*Teaching Assistant*, PHC 6937: Introduction to Applied Biostatistical Computing Using SAS
Su '20	*Teaching Assistant*, PHC 6052: Introduction to Biostatistical Methods
Sp '20	*Teaching Assistant*, PHC 6937: Data Visualization in the Health Sciences
FA '19, '20	*Teaching Assistant*, PHC 6092: Introduction to Biostatistical Theory
	BOISE STATE UNIVERSITY, Department of Mathematics
Sp '19	*Instructor (2 Sections)*, MATH 149: Pre-Calculus:
FA '17, '18	*Instructor (2 Sections)*, MATH 108: Intermediate Algebra
Sp '18	*Tutor*, MATH 015-025-108-123: Algebra Classes, and MATH 143-144-149: Pre-Calculus Classes

Consulting Experience

Aug. '21 - Present	**Department of Hematology and Oncology, University of Florida** Provided statistical support for a study funded by the NIH grant (1R01NS102624-01) titled "Optimizing AAV Vectors for Central Nervous System Transduction" (PI: Coy Heldermon). • Designed a suitable pipeline for the bioinformatics pre-processing of raw sequenced reads. • Performed statistical analyses for analyzing mRNA and DNA profiles from different animal models. Primary statistical analyses include nonparametric tests, rank aggregation, and correlation analyses. • Utilized modern machine learning techniques from data visualization software to provide statistical graphics.
Jan '21 - Present	**Department of Psychiatry & Department of Clinical Psychology, University of Florida** Provided statistical support for various research projects by Dr. John Williamson, Dr. David Clark, and their trainees. • Developed statistical models to analyze longitudinal and high-dimensional cross-sectional data sets. Primary statistical analyses involved mixed effects modeling, and penalized regression modeling. • Developed computer programs for data visualization.
Aug. '20 - PRESENT	**U.S. Department of Veteran Affairs, Gainesville, FL, USA** Provided analytical support for the Brain Rehabilitation Research Center (BRRC) housed at the VA. • Performed statistical analyses for more than 10 different projects and grant proposals. Primary statistical analyses involved power and sample size calculations, regression analysis, analysis of variance, multivariate analysis of variance, and correlation analysis. • Wrote the statistical plan section for 4 grants submitted by BRRC members. • Constant communication with clinicians and physicians on statistical design and methodologies for ongoing projects.

Publications

1) **Anyaso-Samuel, S.**, Sachdeva, A., Guha, S., and Datta, S. Metagenomic geolocation prediction using an adaptive ensemble classifier. *Frontiers in Genetics, 12*, p.642282, doi:10.3389/fgene.2021.642282 (2021).

2) **Anyaso-Samuel, S.**, Sachdeva, A., Guha, S., and Datta, S. Bioinformatics preprocessing of microbiome data with an application to metagenomic forensics. In *Statistical Analysis of Microbiome Data*, (pp. 45-78), Eds: S. Datta and S. Guha, Springer (2021).

3) **Anyaso-Samuel, S.**, and Datta, S. Adjusting for informative cluster size in pseudo-value based regression approaches with clustered time-to-event data. *Submitted*, arxiv.org/abs/2210.13410v1 (2022+).

4) **Anyaso-Samuel, S.**, Bandyopadhyay, D, and Datta, S. Pseudo-value regression of clustered current status data with informative cluster or subcluster sizes in a multistate model. *In preparation*, (2022+).

5) **Anyaso-Samuel, S.**, and Datta, S. Marginal analysis of clustered data with informative subgroup size induced by a subject level continuous covariate. *In preparation*, (2022+).

Grants

1) **U.S. Department of Veterans Affairs IPA**, "Brain Rehabilitation Research Projects". September 2022 - August 2023. Role: Principal Investigator (Mentor: Somnath Datta; VA PIs: D. Clark, R. M. Bauer).

2) **U.S. Department of Veterans Affairs IPA**, "Brain Rehabilitation Research Projects". September 2021 - August 2022. Role: Principal Investigator (Mentor: Somnath Datta; VA PIs: D. Clark, R. M. Bauer).

3) **U.S. Department of Veterans Affairs IPA**, "Brain Rehabilitation Research Projects". September 2020 - August 2021. Role: Principal Investigator (Mentor: Somnath Datta; VA PIs: D. Clark, R. M. Bauer).

Professional Development

Aug. '22 - Present	**Preparing Future Faculty** *Center for Teaching Excellence, University of Florida* • Competitive and selective semester-long workshop focused on preparing participants for future careers in various academic settings. • Devoted emphasis on evidence-based teaching, learning practices, expanding mentoring team, and strategies for being a successful faculty member.

Presentations and Seminars

Aug. '22	[Contributed Talk] Adjusting for Informative Cluster Size in Pseudo-Value-Based Regression Approaches with Clustered Time-to-Event Data, *2022 Joint Statistical Meetings*, Washington DC.
June '22	[Contributed Poster] Pseudo-value based regression for clustered time-to-event data when cluster size is informative, *2022 International Chinese Statistical Association (ICSA) Applied Statistics Symposium*, Gainesville, FL.
Apr. '22	[Contributed Poster] Pseudo-value based regression for clustered time-to-event data when cluster size is informative, *UF College of Medicine Research Day 2022*, Gainesville, FL.
Feb. '22	[Contributed Talk] Pseudo-value based regression for clustered time-to-event data when cluster size is informative, *PHHP Research Day 2022*, Virtual Conference.
Aug. '21	[Invited Talk] Bioinformatics Pre-processing of Microbiome Data with an Application to Metagenomics Forensics, *2021 Joint Statistical Meetings*, Virtual Conference
Feb '21	[Contributed Talk] Bioinformatics Pre-processing of Microbiome Data with an Application to Metagenomics Forensics, *PHHP Research Day 2021*, Virtual Conference
July '20	[Contributed Talk] Metagenomic Geolocation Prediction Using an Adaptive Ensemble Classifier, *28th Conference on Intelligent Systems for Molecular Biology*, Virtual Conference
June '19	[Contributed Poster] EWMA Control Chart with a Dynamic Sampling Scheme, *2019 Quality and Productivity Research Conference*, Washington D.C.
May '19	[Contributed Poster] Dynamic Sampling Versions of Popular SPC charts for Big Data Analysis, *2019 IMS/ASA Spring Research Conference*, Blacksburg, VA.
Mar. '19	[Contributed Poster] Statistical Process Control Charts for Monitoring Big Data Streams, *Workshop on Emerging Data Science Methods for Complex Biomedical and Cyber Data*, Augusta, GA.
Dec. '18	[Contributed Poster] Using Data Science to help Idaho cities make hiring decisions, *Boise State University Service-learning student exhibition*, Boise, ID.
Mar. '18	[Contributed Poster] Some contributions to the interpretation of Fuzzy Regression Intervals, *Computing Research Association URMD Workshop*, San Diego, CA.
Dec. '17	[Seminar Talk] Fuzzy Regression Intervals, Graduate Student Seminar, *Department of Mathematics, Boise State University*, Boise, ID.

Software

1) **Anyaso-Samuel, S.**, and Mukherjee, P. **DyAEWMA.** R package for estimating the average time to signal (ATS) of an adaptive EWMA chart with a dynamic sampling scheme or the average run length (ARL) of the adaptive EWMA chart. https://github.com/samuelanyaso/DyAEWMA

2) **Anyaso-Samuel, S.**, Sachdeva, A., Guha, S., and Datta, S. **metagenomic_data_analysis**. Suite of programs for the bioinformatics pre-processing and downstream analysis of raw sequence metagenomics data. https://github.com/samuelanyaso/metagenomic_data_analysis

Computer Skills

General Software	- Expertise in the Windows, Linux and Macintosh Operating systems. - Advanced skills in Word, Excel, and Powerpoint.
Computing	- Parallel Computing in selected scripting languages. - Extensive experience with **R**, **C++**, MATLAB, Python, LaTeX - Intermediate experience with SAS, STATA, SPSS
Bioinformatics	- Pre-processing and analysis of large-scale sequencing data. - Downstream analysis of -omics data.

Honors and Awards

Apr. '22	DEI Poster Award (Data Science); 2022 College of Medicine Research Day
Mar. '22	UF Department of Biostatistics PhD Travel Award
July '20	Intelligent Systems for Molecular Biology 2020 - Fellowship Award
July '19	2019 JSM Diversity Workshop and Mentoring Program - Student Scholarship
June '19	36th ASA Quality & Productivity Research Conference - Student Scholarship
Mar. '19	Best Poster; Workshop on Emerging Data Science Methods for Complex Biomedical and Cyber Data, *Department of Population Health Sciences, Medical College of Georgia*
Feb. '19	2019 ASA/IMS Spring Research Conference - Student Scholarship
Dec. '18	Best Poster from College of Engineering; Boise State University service-learning student exhibition, *Boise State University*
Sept. '18	ACM Richard Tapia Celebration of Diversity in Computing Conference Scholarship
June '18	Student Representative, American Statistical Association, Boise State University
May '18	Graduate Summer Fellowship, Department of Mathematics, Boise State University
May '18	Alfred M. Dufty Jr. Award, *Boise State University*
Mar. '18	Computing Research Association (CRA) Sponsorship for CRA URMD workshop
Aug. '17	Graduate Residential Scholars Program, *Boise State University*

Professional Memberships

2014 - Present	Royal Statistical Society
2017 - Present	Institute of Mathematical Statistics
2018 - Present	American Statistical Association
2022 - Present	International Chinese Statistical Association
2017 - 2019	Mathematical Association of America
2020 - 2021	International Society for Computational Biology

Service

Journal Review Service

- Lifetime Data Analysis
- Journal of Applied Statistics

University Service (University of Florida)

- *Member*, Student recruitment committee; Department of Biostatistics (Nov. 2021 - Present).
- *Vice President*, Biostatistics Students' Organization (Sept. 2021 - Sept. 2022).
- *President*, Biostatistics Students' Organization (Sept. 2022 - Present).

REFEREES

Available upon request.