Samuel Anyaso-Samuel

Contact Information

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Education

August '19 - Present	Ph.D. BIOSTATISTICS, **University of Florida, USA** GPA: 3.85/4.00 | Advisor: Somnath Datta
August '17 - May '19	M.Sc. MATHEMATICS, **Boise State University, USA** Specialization: Statistics | GPA: 3.85/4.00 | Advisor: Partha Mukherjee Thesis: "Dynamic Sampling Versions of Popular SPC charts for Big Data Analysis"
Oct. '15 - Mar. '16	Diploma in Project Management **Institute of Commercial Management**, Hampshire, England
Nov. '09 - Dec. '14	B.Tech. STATISTICS, **Federal University of Technology, Owerri, Nigeria** Thesis: "Some Contributions to the interpretation of Fuzzy Regression Intervals" GPA: 3.61/4.00 | Advisor: Benson Onoghojobi

Research Projects

Jan. '20 - PRESENT	**Metagenomic Geolocation Prediction Using an Adaptive Ensemble Classifier** *Advisor: Somnath Datta | University of Florida, USA* • Constructed bioinformatics pipeline for analysis of whole genome shotgun metagenomics data. • Designed downstream analysis for training machine learning classifiers including an adaptive ensemble classifier for prediction of the origin of a given metagenomic sample. • Writing reproducible codes for data analysis and provided curated report of insightful findings.
May '18 - May '19	**Statistical Process Control Charts for Monitoring Big Data Streams** *Advisor: Partha Mukherjee | Boise State University, USA* • Design of dynamic sampling control charts for analyzing big data streams generated from sequential production processes. • Programmed reproducible codes and packages to implement methods and visualize data. • Perform in-depth analysis for diverse data streams and provide curated report of insightful findings.
March '18 - Sept. '18	**Adaptive r Out of m Control Chart for Detecting Small and Persistent Distributional shifts** *Advisor: Partha Mukherjee | Boise State University, USA* • Developed statistical algorithms for quick detection of persistent shifts in the distribution of a production process. • Performed intensive simulation studies to generate control limits, and threshold values for monitoring data from sequential processes using statistical modeling. • Evaluated the performance of the new control charts. • Data analysis with the implementation of the developed methods.
Aug. '15 - March '16	**Efficacy of new antimalarial drugs – Feasibility Study** *Advisor: Caroline Okolie | Pediatrics Department, Jos University Teaching Hospital, Nigeria* • Effectively analyzed, interpreted and detected trends/patterns in complex medical datasets which showed relationships between infants' reactions to the prescription drugs and living conditions in rural communities. • Wrote reproducible computer codes and provided support for data management. • Developed reports and visual representations, while providing necessary consultation • Guided students in preparation and presentation of research findings.

Articles

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

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

Professional Experience

Aug. '20 - Present	**NF/SG VHS Malcom Randall VA Medical Center, Gainesville, Florida** *Biostatistician* • Provide analytical support for research projects of the Brain Rehabilitation Research Center. • Constant communication with clinicians and physicians on statistical design and methodologies for ongoing projects.
May '15 - April '16	**Nigeria Immigration Service, Jos, Nigeria** *Statistician/Data Analyst* • Performed data analysis and interpreted results using commonly used statistical models • Effectively developed and communicated reports with visual representations
May '13 - Jan. '14	**Triton Group, Lagos, Nigeria** *Data Analyst/Material Planning Intern* • Preformed procurement Planning – with advanced knowledge of MS Excel and SAP Modules • Developed analytical sales plan with direct implementation • Performed strategic Planning of business, review and control of documentation • Identified, analyzed and interpreted trends in sales datasets using statistical time series models. • Effective analysis of market share data for further sustenance of competitive advantage.

Teaching Experience

	UNIVERSITY OF FLORIDA
Su '21	Teaching Assistant for Bayesian Biostatistical Methods: PHC 6937
Sp '21, Fa '21	Teaching Assistant for Pubic health computing: PHC 6089
Sp '21	Teaching Assistant for Fontiers in Biostatistics: PHC 6937
Su '20	Teaching Assistant for Introduction to Applied Biostatistical Computing Using SAS: PHC 6937
Su '20	Teaching Assistant for Introduction to Biostatistical Methods: PHC 6052
Sp '20	Teaching Assistant for Data Visualization in the Health Sciences: PHC 6937
Fa '19, '20	Teaching Assistant for Introduction to Biostatistical Theory: PHC 6092
	BOISE STATE UNIVERSITY
Sp '19	Instructor of Pre-Calculus: MATH 149 (2 Sections)
Fa '18	Instructor of Intermediate Algebra: MATH 108 (2 Sections)
Sp '18	Tutor for Algebra Classes (MATH 015-025-108-123) and Pre-Calculus Classes (MATH 143-144-149)
Fa '17	Instructor of Intermediate Algebra: MATH 108 (2 Sections)
Fa '15	Tutor for Introductory Statistical Computing, *Jos University Teaching Hospital*.

Presentations and Seminars

Aug. '21	[Invited Talk] Bioinformatics Pre-processing of Microbiome Data with an Application to Metagenomics Forensics, *Joint Statistical Meetings 2021*, 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.

Honors and Awards

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
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
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
Mar. '18	Computing Research Association (CRA) Sponsorship for CRA URMD workshop
Aug. '17	Graduate Residential Scholars Program, Boise State University
Aug. '17	Graduate Teaching Assistantship, Department of Mathematics, Boise State University

Research Interests

Survival analysis; Bioinformatics; Metagenomics; Microbiome Data; Statistical Machine Learning; Statistical Process Control; Predictive Modeling; Big Data; Time Series; Fuzzy Regression

Technical 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**, MATLAB, Python, LaTeX - Intermediate experience with SAS, STATA, SPSS
Bioinformatics	- Pre-processing and analysis of large-scale sequencing data. - Downstream analysis of -omics data.