Dennis Baidoo, MS, GStat

baidoo.20@osu.edu | (505) 523-5321 | Columbus, OH | Personal Website | LinkedIn

Professional Summary

Early-career statistician with over four years of experience in data analysis, statistical modeling, and public health research. Skilled in applying advanced statistical techniques to address complex health challenges, with a proven track record of analytical reasoning, adaptability, and effective collaboration across teams. Seeking to leverage leadership, strategic planning, and analytical expertise to advance data-driven solutions in public health and related fields.

Education

- **The Ohio State University** — **Columbus, OH**
  Interdisciplinary Ph.D in Biostatistics — ***August 2026 - May 2031***
  - University Fellow - Awarded the competitive University Fellowship for doctoral study in Biostatistics.

- **University of New Mexico** — **Albuquerque, NM**
  M.S in Statistics — ***January 2023 - May 2025***
  - Research: Multi-Dimensional and Subtype-Specific Variation in Angiogenesis and Its Association with Survival in Breast Cancer.
  - Golden Key International Honor Society - Top 15% of the graduating class.

- **University of Ghana** — **Accra, Ghana**
  B.Sc in Statistics and Mathematics (Double Major) — ***Aug 2017 - Nov 2021***
  - First Class Honors
  - Research: Violation of homoskedasticity assumption and comparison of remedy methods for heteroskedasticity in multiple linear regression models.
  - Dean's Honor List - Top 5% of the graduating class.

Professional Experience

- **The Office of Assessment & Academic Program Review, University of New Mexico** — **Albuquerque, NM**
  Project Assistant, Supervisor: Dr. Julie Sanchez — ***June 2026 – July 2026***
  - Evaluated 130+ STEM student artifacts using statewide rubrics, achieving high scoring consistency and improving Quantitative Reasoning assessment outcomes.
  - Collaborated with faculty teams during institutional review cycles to calibrate rubrics, strengthen inter-rater reliability, and standardize student evaluation.
  - Validated and managed 500+ assessment records in the university database, ensuring accurate reporting for accreditation and program evaluation.
  - Analyzed assessment trends across STEM courses, providing data-driven insights to support curriculum improvement and student success initiatives.

- **Algoverse AI Research Program, Algoverse** — **Albuquerque, NM**
  AI Research Fellow, Advisor: Mr. Kevin Zhu — ***August 2025 - Current***
  - Collaborated with AI researchers from institutions including Meta, Stanford, OpenAI, Berkeley, and Cornell to develop socially responsible applications of LLMs and AI models.
  - Participated in lectures on algorithmic fairness, bias in medical AI systems, and ethical deployment of large language models in public health contexts.
  - Designed and implemented a research project aligned with public health or health equity, applying AI methods to low-resource settings, bias detection, or medical data.

- Developed skills in reproducible research, literature review, coding, and presenting findings in alignment with best practices in responsible AI.
- Earned a merit-based tuition scholarship and support toward potential publication in venues such as the Conference on Neural Information Processing Systems (NeurIPS) or Empirical Methods in Natural Language Processing (EMNLP).

- **College of Population Health, University of New Mexico** **Albuquerque, NM**
  Graduate Researcher, Advisor: Dr. Stephanie McIver ***May 2024 - July 2026***
  - Leading mortality burden analysis for student suicide in New Mexico State, using quantitative methods to drive health policy adjustments.
  - Designed predictive machine learning (92% accuracy) and time series models for NIH-funded research study identifying student suicide risk factors, directly informing the university's mental health outreach programs.
  - Identified and ranked critical suicide risk factors (e.g., academic pressure, social isolation), enabling data-driven prevention strategies that reduced high-risk cases.
  - Co-designed suicide prevention talks with campus health teams, embedding mental health modules in statistics courses, and post-intervention surveys showed more than a 30% increase in student help-seeking behavior.
  - Submitted findings to a peer-reviewed public health journal, currently under review, to expand the evidence base for university-level suicide prevention initiatives nationwide.

- **Office of the Vice President for Research, University of New Mexico** **Albuquerque, NM**
  Zancada Graduate Fellow, Advisor: Prof. Melissa Emery Thompson ***May 2024 - June 2025***
  - Entrusted with promoting interdisciplinary research, ethical scholarship, and community engagement to address complex global challenges.
  - Participated in bi-weekly professional development workshops focused on leadership, policy engagement, and research communication.
  - Collaborated with fellows across diverse disciplines to design actionable research strategies and promote civic impact.
  - Strengthened skills in research leadership, academic networking, and translational communication.

- **Center for Teaching and Learning, University of New Mexico** **Albuquerque, NM**
  Graduate Teaching Scholar, Advisor: Dr. Jennifer Pollard ***August 2023 - June 2024***
  - Designed and implemented a Scholarship of Teaching and Learning (SoTL) based classroom intervention; prepared final reflection and presentation for campus-wide showcase.
  - Committed to 10+ hours monthly for seminars, consultations, peer observations, and project work on the Scholarship of Teaching and Learning (SoTL).
  - Participated in monthly workshops focused on applying evidence-based teaching strategies across disciplines.
  - Analyzed mixed-methods data and produced actionable recommendations adopted to enhance TA training and cross-cultural teaching support across U.S. universities.
  - Completed peer consultations and teaching observations aimed at improving classroom practices.

- **Department of Anesthesiology, University of New Mexico** **Albuquerque, NM**
  Graduate Research Assistant, Advisor: Dr. Reza Ehsanian ***June 2024 - January 2025***
  - Supported data collection and analysis for a multi-site study on genicular nerve radiofrequency ablation (RFA) practice patterns, contributing to insights that optimized clinical protocols for 500+ annual procedures.
  - Streamlined research collaboration by developing and maintaining centralized project documentation systems, ensuring 100% compliance with institutional protocols and improving team efficiency by 25%.
  - Authored strategic briefs synthesizing research outcomes, influencing 3 departmental policy changes in 2024.

- Presented study findings to multidisciplinary clinical teams, fostering cross-specialty dialogue and driving adoption of evidence-based practice changes.

- **African American Student Services, University of New Mexico** **Albuquerque, NM**
  Research and Project Assistant, Advisor: Dr. Brandi Stone ***June 2023 - December 2025***
  - Led a high-impact mathematics and statistics pilot program, leveraging data-driven analysis to optimize quantitative assessments, resulting in a 45% increase in student success rates.
  - Trained 15+ students in R for qualitative research, boosting reproducibility and enabling 3 conference presentations.
  - Boosted research grant success rate from 40% to 80%, while maintaining exceptional program pass rates, driving sustainable funding and impact.
  - Developed and implemented targeted mentorship strategies, improving retention rates for underrepresented students by 30%.

- **Compassion International Ghana** **Accra, Ghana**
  Intern - Data Analyst, Advisor: Mr. Patrick Attah-Darkoh ***May 2018 - Jul 2019***
  - Transformed malaria program outcomes through data-driven insights, optimizing interventions that reduced cases by 37% in target regions.
  - Partnered with Compassion International Ghana to optimize resource allocation for malaria-affected children, reducing health disparities in underserved communities by 25%.
  - Designed and implemented dashboards for real-time tracking of key health indicators, enhancing decision-making and stakeholder reporting efficiency.
  - Conducted spatial analysis of malaria incidence to identify high-risk clusters, guiding targeted intervention strategies and improving program impact.

Academic Service, Leadership, & Volunteering

2026 - Exhibitor & Professional Engagement Representative, American Statistical Association (ASA) Biopharmaceutical Section , Joint Statistical Meetings (JSM)

2026 - Continuing Education Program Monitor, Joint Statistical Meetings (JSM)

2026 - Promotion Committee Member, Statistics in Pharmaceuticals (SIP), University of Connecticut

2025 - Reviewer, Journal of Open Source Education (JOSE)

2025 - Reviewer, Biostats4You: University of Minnesota

2025 - Reviewer, Undergraduate Statistics Project Competition: The Consortium for the Advancement of Undergraduate Statistics Education (CAUSE) and the American Statistical Association (ASA)

2023|24 - Reviewer, Ronald E. McNair Scholars Research Competition Conference

2023|24 - Research Proposal Reviewer, Graduate and Professional Student Association: University of New Mexico

2023 - Registration Assistant, Biopharmaceutical Section Regulatory-Industry Statistics Workshop: American Statistical Association (ASA)

2023 - Peer Mentor, Compassion International Ghana

2023 - Mentor, African American Student Services: University of New Mexico

2023 - Peer Mentor, Project for New Mexico Graduates of Color: University of New Mexico

2023 - Student Advisor, Global Education Office: University of New Mexico

2023 - Organizer, Pentecostal Students and Associates: University of New Mexico

2020 - Pandemic Educator, Department of Psychology: University of Ghana

RESEARCH EXPERIENCE

Peer-reviewed Articles (Link to Google Scholar)

- **Baidoo, D**. (2026). Multi-dimensional structure and subtype-specific heterogeneity of angiogenesis in breast cancer. *PLOS ONE*. 10.1371/journal.pone.0348390

Preprints

- Amevor, R., Kubuafor, E., **Baidoo, D**., (2026). Adaptive Weighting for Time-to-Event Continual Reassessment Method: Improving Safety in Phase I Dose-Finding Through Data-Driven Delay Distribution Estimation. arXiv:2602.19012
- Amevor, R., **Baidoo, D**., Kubuafor, E., (2026). Time-Varying Hazard Patterns and Co-Mutation Profiles of KRAS G12C and G12D in Real-World NSCLC. arXiv:2602.19295
- Kubuafor, E., **Baidoo, D**., Amevor, R., et al (2025). Latent spatial heterogeneity in U.S. cancer mortality: A multi-site clustering and spatial autocorrelation analysis. Submitted to MedLIFE 2025 Proceedings (Springer Nature ASTI Book Series). arXiv:2508.12188
- **Baidoo, D**., Amevor, R., Kubuafor, E., et al (2025). Bayesian Hierarchical Methods for Surveillance of Cervical Dystonia Treatments. Submitted to MedLIFE 2025 Proceedings (Springer Nature ASTI Book Series). arXiv:2508.15762
- Kubuafor, E., **Baidoo, D**., Amevor, R., et al (2024). Evaluation of Time Series Forecasting Models for Predicting Lung Cancer Mortality Rates in the United States: A Comparison with Altuhaifa's (2023) Study. Submitted to MedLIFE 2024 Proceedings (Springer Nature ASTI Book Series). arXiv:2508.16052
- Amevor, R., **Baidoo, D**., Kubuafor, E., et al (2025). Integrative Prognostic Modeling of Breast Cancer Survival with Gene Expression and Clinical Data. arXiv:2508.16740
- **Baidoo, D**., Aboagye, F., Okeke, O. J., et al (2024, in progress). Comparing malaria trends in the Comoros Islands: ARIMA modeling and retrospective analysis. arXiv:2508.16018

In-progress

- **Baidoo, D**. & McIver, S. (2025). From Data to Policy: Quantitative Insights on the Mortality Burden of Student Suicide in New Mexico.
- **Baidoo, D**., Okeke, O. J., Amevor, R., et al (2024, in review). Elucidating Community-Level Determinants of Adolescent Obesity in New Mexico: An Artificial Intelligence Approach Using Bayesian Belief Networks. Submitted to EMCEI 2024 Proceedings (Springer Nature ASTI Book Series)

Collaborative Work

- Okeke, O. J., Nelson, U. E., Nwaogu, C., Oladoyin, O. O., Kubuafor, E., **Baidoo, D**., Akinyemi, T., Ajeyomi, A. S., Idris, R. A., Fabunmi, I. A. (2025). Assessing the Influence of Locational Suitability on the Spatial Distribution of Household Wealth in Bernalillo County, NM. arXiv:2510.11048
- Okeke, O. J., **Baidoo, D**., Frimpong, J.A., et al (2023). Modelling Land Suitability for Optimal Rice Cultivation in Ebonyi State, Nigeria: A Comparative Study of Empirical Bayesian Kriging and Inverse Distance Weighted Geostatistical Models. doi.org/978-624-6045-02-9

Poster Presentation

- **Baidoo, D**. (2026, October). Multi-dimensional structure and subtype-specific heterogeneity of angiogenesis in breast cancer. Poster presented at the Statistics and Biostatistics Graduate Student Poster Session, The Ohio State University.
- **Baidoo, D**. (2025, October). Bayesian Hierarchical Methods for Surveillance of Cervical Dystonia Treatments. Paper accepted for presentation at the International Forum on Research Excellence, Sigma Xi.
- **Baidoo, D**. (2025, August). Bayesian Hierarchical Methods for Surveillance of Cervical Dystonia Treatments. Paper accepted for presentation at the Statistics in Pharmaceuticals (SIP), University of Connecticut.

- **Baidoo, D**., & Okeke, O. J. (2024, February). Leveraging Bayesian Belief Networks to Uncover Place-Based Influences on Adolescent Obesity in New Mexico. Paper accepted for presentation at the American Statistical Association Conference on Statistical Practice, New Orleans, Louisiana.

- **Baidoo, D**., & Okeke, O. J. (2023, September). Leveraging Bayesian Belief Networks to Uncover Place-Based Influences on Adolescent Obesity in New Mexico. The paper was accepted for presentation at the Prof. Michael Woodroofe Memorial Conference, Ann Arbor, Department of Statistics, University of Michigan.

Contributed Talks

- **Baidoo, D**. Beyond the Formula: Transitioning Students from Passive Repetition to Active Quantitative Reasoning. University of New Mexico, 2026 Spring Teaching Conference, April 2026.

- **Baidoo, D**. Crossing Academic Borders: Navigating Teaching in the U.S. as an International Student. Center for Teaching and Learning: University of New Mexico, Albuquerque, May 2024.

TEACHING EXPERIENCE

- **Department of Mathematics and Statistics, University of New Mexico** — **Albuquerque, NM**
  Course Instructor — ***Jan 2023 - May 2026***
  - Designed and delivered 400+ engaging lectures for MATH1350 (Introductory Statistics), reaching 500+ undergraduates across 8 semesters - Spring 2023, Fall 2023, Spring 2024, Summer 2024, Spring 2025, Summer 2025, Fall 2025, and Spring 2026.
  - Designed and taught the first-ever offering of the new MATH 1300 (Statistical Literacy) course from scratch to non-quantitative majors.
  - Cultivated a welcoming classroom atmosphere that encouraged questions and collaborative learning.
  - Guided 20+ final-year students in applying descriptive and inferential statistics to psychology research projects.
  - Reduced departmental dropout rates by 66% through proactive student support interventions.

- **Department of Statistics and Actuarial Science, University of Ghana** — **Accra, Ghana**
  Teaching Assistant, Instructor: Dr. Godwin Debrah — ***Oct 2021 - Nov 2022***
  - Led rigorous yet accessible instruction in STAT 222 (Regression Analysis - linear, logistic, nonlinear) and time series analysis for mixed audiences of quantitative and non-quantitative majors.
  - Provided 10+ hours weekly of one-on-one statistical guidance, helping 86% of students successfully implement regression analysis in their capstone projects.
  - Maintained a high passing rate with more than 90% getting an A with no students failing the course.
  - Integrated real-world datasets and applied case studies into lectures, increasing student engagement and practical problem-solving skills.

- **Mozano Senior High School** — **Gomoa Eshiem, Ghana**
  Course Instructor — ***Jul 2019 - Aug 2019***
  - Tutored core and elective mathematics at my alma mater, supporting students in mastering fundamental and advanced concepts.
  - Mentored underrepresented student groups on advancing their studies in mathematical sciences at the university.
  - Mentored 50+ minority students in statistical methods, with 20% pursuing bachelor's degrees in statistics/economics at top universities.
  - Organized peer-led study groups and academic workshops, fostering collaborative learning and improving overall student performance in quantitative courses.

Awards & Honors

2026 - 3rd Place Winner, Best Contributed Poster Award - Biopharmaceutical Section, JSM
2026 - Norman Beery Memorial Scholarship, American Statistical Association
2026 - University Fellowship, The Ohio State University
2026 - NISS Writing Workshop for Junior Researchers Travel Award, National Institute of Statistical Sciences
2026 - JSM Student and Early-Career Travel Award, American Statistical Association
2026 - Teaching Statistical Thinking with GAISE Workshop Travel Award, NSF-Funded EAPOST Program
2026 - Professional Development Grant, University of New Mexico
2026 - Student Research Grant, University of New Mexico
2025 - Lester R. Curtin Award, American Statistical Association
2025 - Statistics in Pharmaceuticals (SIP) Scholarship Award, University of Connecticut
2025 - JSM Student and Early-Career Travel Award, American Statistical Association
2025 - SDSS Student and Early-Career Travel Award, American Statistical Association
2025 - Excellence in Teaching Award, University of New Mexico
2025 - The South Central Topology Conference IV Travel Award, Texas A & M University
2025 - Professional Development Grant, University of New Mexico
2025 - Project for New Mexico Graduates of Color Scholarship, University of New Mexico
2024 - Biopharmaceutical Section Student Scholarship Award, American Statistical Association
2024 - Diversity Mentoring Program Award, Joint Statistical Meetings
2024 - Office of the Vice President for Research Zancada Graduate Fellowship, University of New Mexico
2024 - Acxiom Diversity Scholarship Award, Acxiom
2024 - Graduate Scholarship Fund Grant, University of New Mexico
2024 - Graduate Community Mentoring Scholarship, University of New Mexico
2023 - Professional Development Grant, University of New Mexico
2023 - Project for New Mexico Graduates of Color Scholarship, University of New Mexico
2023 - Scholarship of Teaching & Learning Award, University of New Mexico
2023 - The South Central Topology Conference III Travel Award, New Mexico State University
2023 - Prof. Michael Woodroofe Memorial Conference Travel Award, University of Michigan
2023 - Student Research Grant, University of New Mexico
2012 - Overall Best Student in HIV/AIDS Prevention Competition, Gomoa West Education District

Non-Degree Education & Certificates

2026 - Quick-Thinking, Confident, Communicative, and Collaborative: Fundamentals of Applied Improvisation for (Bio)statisticians and Data Scientists
2025 - University of Connecticut: AI for Clinical Trials and Humanized AI for Future Healthcare
2025 - Joint Statistical Meetings: Cultivating a Career as a Statistical Collaborator and Medical Researcher in the Pharmaceutical Industry
2025 - Joint Statistical Meetings: Statistical Issues with Large Language Models
2025 - Joint Statistical Meetings: Bayesian Precision Medicine
2025 - Joint Statistical Meetings: Bayesian Time Series Analysis and Forecasting
2024 - American Statistical Association: Graduate Statistician accreditation (GStat)
2023 - Ronald E. McNair Scholars Research Competition Conference: Outstanding commitment to nurturing undergraduate student growth in research

Highlighted Skills

Soft Skills: Effective Communication, Team Management, Problem-Solving and Critical Thinking, Interpersonal Skills, and Relationship-Building

Technical Skills: Proficiency in data analysis tools (R, SAS, Python, OpenBUGS), LaTeX, GitHub, Microsoft 365, Prompt expert with LLMs, Covidence

Professional Member Association

American Statistical Association

Sigma Xi

Institute of Mathematical Statistics

American Mathematical Society

Golden Key International Honour Society

Eastern North American Region of the International Biometric Society