Michael Okanta

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Professional Summary

Dedicated and student-centered Statistics educator with an MSc from Miami University and 2+ years of teaching and mentoring experience at the university level. As a first-generation college graduate from Ghana, I bring a global perspective, strong communication skills, and a passion for demystifying quantitative concepts for diverse learners. Experienced in teaching introductory statistics (STA261) using R, SAS, JMP, and Excel, and mentoring students beyond the classroom with empathy and professionalism. Technically skilled in data management, statistical analysis, and instructional delivery. Eager to contribute to Ohio State's mission through engaging, inclusive teaching and meaningful departmental service.

Education

Miami University — Oxford, OH
MSc in Statistics (GPA: 3.8/4.0) — *Aug. 2023 – May 2025*

- Graduate Teaching Assistantship recipient
- Relevant Coursework: Regression Analysis, Theory of Statistics, Experimental Design Methods, Bayesian Methods, Advanced Statistical Methods, Statistical Learning, Advanced Data Visualization

Kwame Nkrumah University of Science and Technology (KNUST) — Kumasi, Ghana
BSc in Mathematics – First Class Honors — *Sep. 2017 – Nov. 2021*

- Relevant Coursework; Linear Algebra, Multivariable Calculus, Real & Complex Analysis, Probability Theory

Experience

Miami University — Aug. 2023 – May 2025
Graduate Assistant – Department of Statistics — *Oxford, OH*

- Taught and supported over 600 undergraduate students in STA261 (Introduction to Statistics) each semester across diverse majors, fostering inclusive classrooms and boosting student performance through personalized instruction and weekly lab facilitation.
- Improved conceptual understanding and exam scores by creating interactive problem-solving activities using JMP and Excel, leading to consistent praise in student evaluations.
- Held over 300 office hours, supporting students beyond the classroom and earning a reputation as the "go-to" mentor among peers and non-majors.
- Developed course materials, graded assignments, and maintained detailed records to ensure academic integrity and student success.
- Trained to deliver instruction aligned with best practices in data literacy and equity, contributing to department-level learning outcome assessments.
- Trained and supported new TAs and international students adapting to U.S. academic culture.

Ghana EXIMBANK — Apr. 2023 – Jul. 2023
Finance Intern — *Accra, Ghana*

- Reduced financial reporting time by 40% by automating invoice tracking and reconciliation using SQL, Excel, and Finacle.
- Designed interactive dashboards in Power BI to support cross-department communication and provide real-time visibility into financial KPIs.
- Coordinated with accounting, credit, and audit teams to prepare detailed financial statements and ensured compliance with regulatory timelines.
- Recognized for initiative in identifying data discrepancies and proposing solutions that improved monthly financial accuracy.

Adentan Municipal Health Directorate — Oct. 2021 – Sep. 2022
Data Manager & Assistant Accountant — *Accra, Ghana*

- Spearheaded the digital transformation of public health surveillance systems across 15 facilities, reducing monthly reporting delays by 75% through streamlined workflows using Excel and DHIMS2.
- Created automated reports and dashboards that enhanced decision-making on vaccine rollout and COVID-19 outreach, directly influencing district-level health strategies.
- Trained 30+ nurses and health officers on digital data integrity, reporting protocols, and evidence-based monitoring, resulting in improved accuracy and timely reporting.
- Monitored and flagged anomalous data to uphold data quality and confidentiality in sensitive health domains, contributing to public trust and operational transparency.
- Managed $8,000+ in monthly transactions, ensuring accurate bookkeeping, expense tracking, and timely bank reconciliations.
- Prepared reports for internal audits and ensured documentation met public health compliance standards, earning commendation from senior accountants.
- Collaborated with procurement teams to allocate resources transparently during peak COVID-19 periods, balancing urgency and accountability.

Instructional Projects

Premier League Dashboard 2024
R Shiny, Dynamic Visualization

- Built an interactive dashboard to explore match stats and player performance.

MKT Faculty Ratings Analysis 2024
R, Mixed Models

- Modeled the relationship between faculty behavior and student ratings using multilevel models. Insights supported curriculum reform discussions in business courses.

Great Lakes Ice Cover Trends 2024
R, Time Series, Environmental Statistics

- Analyzed 50+ years of seasonal ice data, applying AUC and trend metrics to uncover climate patterns. Demonstrated use of imputation and time series decomposition in real-world data.

Mortality in the USA (1999–2017) 2024
R Shiny, Public Health Dashboard

- Created an interactive dashboard visualizing death causes by age, year, and region. Used to teach public health students how to derive insights from large longitudinal datasets.

Academic Writing & Research

Co-Author, MSc Research Paper 2024–2025
"Reassessing the Goodness-of-Fit Tests in Actuarial Science Decision-Making: Can we rely on p-value reports?"

- Conducted simulation studies evaluating p-value distributions and power of GoF tests under heavy-tailed and truncated distributions.
- Presented at the Ohio Academy of Science (Apr 2025); selected by faculty for presentation at Conference, Toronto (Jul 2025).

Invited Peer Reviewer, Journal of Statistical Computation and Simulation (JSCS) 2024–2025
Manuscripts

- Reviewed 3 manuscripts on simulation methods, mixture models, and goodness-of-fit testing for a leading statistical journal.
- Handpicked for reviewer role as an MSc student based on research excellence and simulation expertise.

Skills

- **Statistical Software & Programming:** R, SAS, JMP, Python, SQL, Excel
- **Learning Management & Instructional Tools:** Canvas, Zoom, PowerPoint, Overleaf, RMarkdown, GitHub
- **Teaching & Pedagogical Expertise:** Inclusive instruction, student-centered learning, lab facilitation, statistical computing demonstrations, one-on-one tutoring, active learning techniques
- **Curriculum & Content Development:** Lab manual creation, assessment design, real-world data integration, custom R & JMP demos for STA261 (Intro to Statistics)
- **Communication & Mentorship:** Cross-disciplinary collaboration, student mentorship, peer tutoring, intercultural teaching sensitivity, professional communication

Awards & Honors

- Outstanding Graduate Student in Statistics, Miami University, Department of Statistics (April 2025)
- Graduate Teaching Assistantship Recipient, Miami University (2023 – 2025)
- First Class Honors BSc Mathematics, Kwame Nkrumah University of Science and Technology, November 2021

Leadership & Service

Head of Audit Committee 2020 – 2021
Mathematics Students' Association, KNUST *Kumasi, Ghana*

- Oversaw financial reporting and audit reviews; ensured transparency and accountability across multiple terms.

Finance Committee Member 2020 – 2021
Royalhouse Students & Associates *Kumasi, Ghana*

- Helped allocate scholarship funds and documented disbursement activities impacting 120+ students.

Publicity Lead 2019 – 2020
Science Students' Association *Kumasi, Ghana*

- Designed and executed survey-informed marketing campaigns; boosted event participation by 40%.