benabijah@gmail.com, babijah@umass.edu
benabijah.github.io

Benjamin A. Abijah

Statistical and data science methods for large-scale biomedical data

1. EDUCATION

University of Massachusetts, Amherst — Expected Sep 2026
Ph.D. Biostatistics

University of Massachusetts, Amherst — May 2023
M.S. Statistics

Kwame Nkrumah Univ. of Sci. & Tech., Ghana — Aug 2020
B.Sc. Statistics

2. PROFESSIONAL MEMBERSHIP/ACCREDITATION/CERTIFICATION

Certificate, Statistical and Computational Data Science, University of Massachusetts, Amherst — Expected May 2026
Member, American Statistical Association (ASA) — 2024 – present
GStat, American Statistical Association — 2024 – present

3. SKILLS

* *denotes "intermediate"*
Computing: R, Python, git, SAS*, SPSS, SQL*, MATLAB*
Methods: Multiomics, Networks, Bioinformatics, Bayesian and Survival models, Machine Learning applications in health
Teaching: 5 years teaching – including assisting statistics courses of over 100 students, and mentoring 5 undergraduates

4. WORK EXPERIENCE

Research Assistant, Raji Lab, UMass Amherst — Aug 2023 – present

- Applying advanced statistical methods to analyze association of proteomics with CVD outcomes and detect critical sex differences
- Comparing a suite of multitask learning methods to identify selectively advantageous ones for feature selection of proteomics associated with CVD outcomes.
- Developing machine learning methods for multitask feature selection of protein biomarkers for CVDs
- Predicting particulate matter pollutant using land use models to estimate air pollution exposure

Consulting Assistant, Statistical Consulting & Collaboration Services, UMass Amherst — May – Aug 2022

- Provided statistical expertise for clients' biomedical, pharmaceutical, and entomology projects
- Directly supported clients' research from data ingestion through analysis implementation and helped to translate findings into actionable health solutions

5. PUBLICATIONS AND MANUSCRIPTS

1. Frempong, N.K., Berchie, R.O., Baidoo, R., **Abijah, B.A.**, & Oforiwaa-Amanfo, O.Y. (2021). A Simulation Study to Examine the Bias of Some Sample Measures of Skewness. Applied Mathematical Sciences, 15(4), 189-200. https://doi.org/10.12988/ams.2021.914276
2. **Abijah, B.A.**, Spracklen, C., Janiczek, M., Rexrode, K.M., Balasubramanian, R. Sex Differences in Proteomics for Ischemic Stroke in the UK Biobank Study (**in progress**)
3. **Abijah, B.A.** & Balasubramanian, R. A Tutorial on Multitask Learning Methods for Proteomics Feature Selection for CVD outcomes (**in progress**)
4. **Abijah, B.A.**, Mottey, B., Janiczek, M., Balasubramanian, R. & Arku, R. Land Use Regression Models for Predicting $PM_{2.5}$ for Epidemiologic Studies in Africa: A Comparative Analysis from Accra and Kigali. (**in progress**)

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6. SELECTED PROJECTS

2025	Longitudinal Analysis of Diabetes Progression in Medicare Patients Using Claims Data
2024	Estimating Infertility Prevalence by Applying a Bayesian Current Duration Approach to Demographic and Health Survey Data Identifying Single-nucleotide polymorphisms (SNPs) associated with Asthma A Bayesian Simulation: the case of Mis-specified Data Generating Process
2023	An Exploration of Heart Failure Clinical Data Mis-specifying the Variance: Does Clustering Affect Estimates?
2022	Cox Proportional Modeling of Cancer Patients' Recurrence-free Survival
2020	Socio-economic Inequalities in Childhood Mortality in Ghana

7. SELECTED AWARDS AND HONORS

- SPHHS Dean's Fellowship Award, UMass Amherst. 2023 – 2025. $30,000
- Travel Grant, UMass Amherst. 2025. $900
- Barclays Bank Scholarship, Barclays Bank Ghana. 2017 – 2020. $3,000
- Valedictorian, 54th Congregation, College of Science, KNUST

8. TRAININGS AND WORKSHOPS

2025	Practical Considerations for Adaptive Clinical Trials Using Bayesian and Frequentist Methods Causal Inference in Randomized Controlled Trials Statistical Considerations in Cell and Gene Therapy Development - *American Statistical Association, Joint Statistical Meetings*
	Optimization for Data Science and Machine Learning Problems - *New England Statistics Symposium*
2024	Fundamentals of Causal Inference With R - *American Statistical Association, Boston Chapter*
	SHARP Training in Mendelian Randomization - *Columbia University Mailman School of Public Health*

9. SELECTED LEADERSHIP AND VOLUNTEER ACTIVITIES

Student Representative — 2025 – present
Department of Biostatistics and Epidemiology, UMass Amherst

Chair, Education and Mentorship — 2022 – present
EKO Global Foundation - Worldwide

Chair, Social Media Committee — 2022 – 2023
African Graduates and Scholars' Association, UMass Amherst

Member, Strategic Planning Committee — 2019
Science Students Association, KNUST

Chair, Academic Committee — 2018 – 2019
Association of Mathematics and Statistics Students, KNUST