Olushola SOYOYE

olusholasoyoye@gmail.com

Education

University of Delaware **Aug. 2021 – Present**
PhD in Educational Statistics and Research Methods *Newark, Delaware*

University of Illinois at Urbana-Champaign **Aug. 2018 – Dec 2020**
MS in Teaching of Mathematics *Champaign, Illinois*

Tai Solarin University of Education **Sep. 2007 – Oct 2011**
BS(Ed) in Mathematics *Ogun, Nigeria*

Relevant Graduate Coursework

- Machine Learning
- Applied Regression Analysis
- Structural Equation Modeling
- Intro to Data Mining
- Mixed Methods in Research
- Applied Multivariate Statistics
- Educational Data Mining
- Advanced Statistical Methods
- Educational Measurement Theory

Experience

Educational Testing Service (ETS) **June 2022 – July 2022**
NAEP-SPRE Intern *Princeton, New Jersey*

- Applied computational and statistical tools for the preprocessing of process data in R and Python.
- Implemented a sequence clustering algorithm (Dynamic Time Warping) on NAEP Process Data using R.
- Contributed to the creation of presentations, manuscripts, and proposals.

University of Delaware **Aug 2021 – Present**
Research Assistant *Newark, Delaware*

- Collaborate with Dr Collier to propose a new method of imputing missing data in propensity scores using AI.
- Responsible for running simulation of data using Monte Carlo methods.
- Responsible for analyzing and interpreting empirical data.

University of Illinois, Urbana-Champaign **Aug 2018 – Dec 2020**
Teaching Assistant *Champaign, Illinois*

- Instructed college students in lower-level math courses: pre-calculus, quantitative reasoning, linear programing, college algebra and trigonometry.
- Mentored a team of undergraduate students on an outreach project by the Illinois Geometry Laboratory (IGL).
- Administered, proctored and graded exams and quizzes as a main instructor, both in main sections and merit sections.

Meadow Hall **April 2014 – July 2016**
Numeracy Teacher *Lagos, Nigeria*

- Tutored Mathematics in Key Stage 2 and Key Stage 3.
- Collaborated with the school's analytics team to collate and analyse end-of-term reports in orderto monitor pupils' progress in assigned cohort.
- Organised afterschool intervention programs for struggling students in Key Stage 2.

Projects

Product Purchase Prediction | *Python, Logistic Regression, Random Forest Classifier* **September 2021**

- Built a machine learning model that utilized random forest classifier to target clients for advert purposes.
- Implemented the model to predict if a new customer will likely purchase a newly manufactured product.

Technical Skills

Familiar S/W: LaTex, MS Office, Python, R, Weka, SQL, Tableau

Leadership / Extracurricular

Data Science Institute **Fall 2021 – Present**
Graduate Affiliate Member *University of Delaware*

Honors and Awards

- Second-place winner of the University of Delaware Carol A. Ammon Case Competition, Spring 2022.
- Third-place winner of the University of Delaware Lerner Business Analytics Case Competition, Winter 2022.
- Made the list of teachers ranked excellent by their students at the University of Illinois at Urbana-Champaign, Spring 2020.
- Awarded the distinction prize of Best Graduating Student at the Tai Solarin University of Education, class of 2011.
- Bronze medallist in the National Mathematics Competition for University Students (NAMCUS), Abuja, Nigeria, in 2010.

Publications

- Collier, Z. K., Zhang, H., and **Soyoye, O.** (2022). Alternative Methods For Interpreting Monte Carlo Experiments.
- Collier, Z. K., Kong, M., **Soyoye, O.,** Chawla, K., Aviles, A., and Payne, Y. (under review). Deep Learning Imputation for Unbalanced and Incomplete Likert-Type Items.
- Collier, Z. K., Chawla, K., and **Soyoye, O.** (in progress). Machine Learning-Based Imputation Techniques in Propensity Score Analysis.

Conference Presentations

- Collier, Z. K., Chawla, K., and **Soyoye, O.** (2022, September). Machine Learning-Based Imputation Techniques in Propensity Score Analysis. Society for Research on Educational Effectiveness. Arlington, Virginia.