# Abraham Addo Adokwei

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## CAREER GOALS

I am interested in developing a career which combines teaching and research, while maintaining my interest in industry and public engagement with Statistics and the wider STEM field; I seek to become a top-notch researcher in the field of Epidemiology with a particular focus on the analysis of data that typically arise in modern biomedical research.

## ACADEMIC DETAILS

| Degree | Program | University | Date |
|---|---|---|---|
| Master of Science | *Statistics* | Iowa State University | Aug 2020 - Present |
| Bachelor of Science (Hons) | *Statistics* | Kwame Nkrumah University of Science and Technology | Sept 2015 - June 2019 |

## CERTIFICATE COURSES

| Course | Platform | University | Date |
|---|---|---|---|
| Logistic Regression in R for Public Health | Coursera | Imperial College London | Sep. 2021 |
| Essential Epidemiologic Tools for Public Health | Coursera | Johns Hopkins University | Aug 2021 |
| Introduction to Statistics and Data with R | Coursera | Duke University | July 2021 |
| Statistical Inference | Coursera | Johns Hopkins University | July 2021 |
| Getting Started with Data Visualization in R | Coursera | Johns Hopkins University | June 2021 |
| Regression Models | Coursera | Johns Hopkins University | June 2021 |
| Introduction to Statistics and Data Analysis in Public Health | Coursera | Imperial College London | June 2021 |

## PROJECTS

- **Master's Critical Component**: *Predicting Corn Yield Based on Measurements from an Unmanned Aerial Vehicle (UAV) (In progress).*
  *Supervisor*: Professor Somak Dutta

- **Course Research**: *City of Chicago Lawsuits and Administrative Claims (Iowa State University, Nov. 2020).*
  *Group Members: Robert Castaneda, Valerie Han, Marie Hardt, Andrew Maloney*

- **Undergraduate Thesis**: *Investigating Properties of Ordinary Least Square Regression Coefficients under Alpha-Stable Distribution of Errors.*
  *Supervisor*: Dr. Gabriel Asare Okyere; *Group Members*: Sarfo Bridget Konadu

- **Course Research**: *Multivariate Analysis of Variance of the Egyptian Skull Data (May 2019)*

  - Compared the means of the Egyptian male skulls obtained within three different time periods using MANOVA
  - Analyzed the skull sizes of the Egyptian males between different time periods to detect changes shown over time using R

- Student's Background Characteristics and Performance in the Department of Mathematics, KNUST (November, 2017).

## RESEARCH INTERESTS

- Regression Analysis
- Causal Inference
- Time Series Analysis

- Survival Analysis
- Generalized Linear Models
- Mixed Effect Models

## WORKING EXPERIENCE

- **Course Instructor**, *Department of Statistics, Iowa State University*          Aug. 2021 - Present.

- ○ I hold office hours to address concepts that are not clear to students enrolled in the course.
- ○ I grade assignments and examinations.
- ○ I work with students enrolled in the online session of Stat 305 to improve their knowledge and career skills.
- ○ I create a learning environment that encourages student involvement and participation.

- **Field Assistant**, *Department of Agronomy, Iowa State University*                    May 2021 - Aug. 2021.

  - ○ I Worked on Corn and Soybean fields under the supervision of Professor Mark Licht.  Nationally funded projects included:
  - ○ *Corn Stand Reduction and Green Snap* – The goal of this research was to explore the effect of green snap ('breaking above ear') on grain yield.
  - ○ *Interseeding Grass and Legume Cover Crops into Early Vegetative Stage Corn* – The objective of this project is to evaluate the effects of interseeded cover crop species, establishment timing, and seeding method on corn productivity.

- **Teaching Assistant**, *Department of Statistics, Iowa State University*                    Jan 2021 - May. 2021.

  - ○ Held Lab sessions for graduate students enrolled in Stat 587: Statistical Methods for Researchers.
  - ○ I graded assignments and examinations.
  - ○ I offered technical support to students in the use of [R] software.

- **Teaching and Research Assistant**, *Kwame Nkrumah Univ. of Science & Tech, Ghana*    Sept 2019 - Aug. 2020.

  - ○ Organize tutorials for undergraduate mathematics students in Regression Analysis, Time Series Analysis, Bayesian Analysis and Survival Analysis.
  - ○ Aid students in their undergraduate thesis and projects.
  - ○ Assist in research related tasks, particularly, in the area of Statistical Data Analysis.
  - ○ Performed administrative activities like taking attendance, grading assignments, and maintaining student records.

- **Intern**, *Tetteh Quarshie Memorial Hospital, Mampong, Ghana*                    May 2018 - July 2018

  - ○ Collected data on patients scheduled for an eye cataract surgery.
  - ○ Evaluated records for preservation and retention
  - ○ Filling and data retrieval.

- **Intern**, *Calbank, KNUST Branch, Kumasi, Ghana*                    Aug 2017 - Sept 2017

  - ○ Helped customers enroll on the best banking product.
  - ○ Provided customer care support to clients.

- **Intern**, *Methodist Girls Senior High School, Mamfe, Ghana*                    May 2017 - July 2017

  - ○ Taugh both Core and Elective Mathematics.
  - ○ Proctored examinations
  - ○ Other administrative activities

- **Intern**, *Nifa Senior High School*                    May 2016 - July 2016

  - ○ Taught both Core and Elective Mathematics.
  - ○ Proctored examinations

## TECHNICAL SKILLS

- **Languages and Software**: R, SAS, SPSS, JMP, SQL, LaTeX, MatLab, Microsoft Office

## PROFESSIONAL ENGAGEMENTS

- **Student Member**, *American Statistical Association (ASA)*

- **Student Member**, *Royal Statistical Society (RSS)*

- **Student Member**, *New England Statistical Society (NESS)*

## SEMINARS AND WORKSHOP

- **Statistics in Pharmaceuticals 2021**, *(Department of Statistics, University of Connecticut)*, Aug. 2021.

- **Recent Advances in Statistical Analysis of Imaging Data**, *(ASA Section on Imaging and Florida State University)*, Dec. 2020.

- **Entrepreneurship, Career and Schloarship Serminar**, *(Association of Chartered Certified Accountants) – (ACCA)*, Oct. 2018

- **Integrity Leadership Training Workshop - Part 2**, November 2016.

- **Transformation Leadership and Governance Seminar – Part 1**, *(Character Formation and Integrity, Call to Leadership & Competence and Leadership)*, Oct. 2016.

## HONORS AND AWARDS

- Cash Award, *Statistics in Pharmaceuticals 2021, University of Connecticut*          Aug. 2021.

- Jebe Scholarship, *Department of Statistics, Iowa State University*          Sep 2020

- MTN Bright Scholar, GHANA          Aug 2018

- Best Mathematics Student          May 2015

## COMMUNITY SERVICE

- **Volunteered and offered** educational help to St. James Anglican Basic School students in Teiman-Accra, Ghana May 2019 - July 2019

- **Executive Board Member** *STATCOM – Iowa State Chapter*          Sep. 2021 - May 2022.

## RELEVANT COURSEWORK

- **IOWA STATE UNIVERSITY**
  *Theory of Probability and Statistics, , Mathematical Statistics, Introduction to R Programming, Sample Survey Theory and Application, Bayesian Statistics, Time Series Analysis.*

- **KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY**
  *Mathematics: Pure Math (Calculus), Real Analysis, Vector Analysis, Linear Algebra, Differential Equations, Numerical Methods and Computation (Using MathLab), Discrete Math, Logic and Set Theory*

  *Statistics: Probability and Statistics, Stochastic Processes, Operations Research, Time Series Analysis, Regression Analysis, Design of Experiments, Survival Analysis, Time Series Analysis, Demographic Statistics, Sample Survey Theory, Quality Control, Basic Epidemiology (Topics in Biostatistics) .*

## REFERENCE

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- Nana Kena Frempong (PhD)
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