

**Rhoda Muse**  
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## **EDUCATION**

**Ph.D. Statistics.** University of Arizona. GPA 3.96/4.00. Expected graduation: 10/2019

Minor: Agricultural Resource Economics.

Dissertation title: *“Frequentist and Bayesian methods for mixed discrete and continuous outcomes with selection, heteroscedasticity and lagged effects.”*

**M.S. Statistics.** University of Arizona. GPA 4.00/4.00. 2013-2015

**B.S. in Actuarial Science.** University of Nairobi, Kenya. 2008-2012

## **RELEVANT COURSES**

Bayesian Statistical Theory and Applications, Applied Time Series Analysis, Applied Econometric Analysis, Design of Experiments, Advanced Statistical Regression analysis, General Linear and Mixed Effects Models, Theory of Linear Models, Statistical Machine Learning, Survival Analysis and Analysis of Categorical Data

## **EMPLOYMENT**

**Teaching Assistant,** University of Arizona. 8/2014 - Present

Worked as a Teaching Assistant for the courses listed below. Duties included grading exams, holding office hours, doing recitation sessions, and writing the exams.

STAT 363 (Introduction to Statistical Methods) – 2 Semester

STAT 263 (Introduction to Statistics and Biostatistics) – 4 Semesters

Worked as the sole instructor responsible for teaching the course listed below for two semesters.

MATH 112 (College Algebra) - 2 Semesters

Tutored in one-on-one sessions at the University of Arizona Tutoring Center for the following courses:

MATH 112 (College Algebra) - 8 Semesters

STAT 163 (Basic Statistics) - 8 Semesters

STAT 263 (Introduction to Statistics and Biostatistics) - 8 Semesters

MATH 125 (Calculus I) - 8 Semesters

MATH 129 (Calculus II) - 8 Semesters

**Risk Analyst,** Equity Bank Limited, Nairobi, Kenya. 9/2012-4/2013

Analyzed risk register data from all branches, prepared bank risk reports, trained branch managers on correct implementation of risk registers and performed validation of a previously developed credit score model to establish its effectiveness.

**Investment analyst intern,** Britam Limited, Nairobi, Kenya. 07/2012-08/2012

Performed weekly equities and fixed securities' market analysis, analyzed the impact of ongoing financial events on performance stocks through expected economic and historical response.

**Enforcement Officer,** Equity Bank Limited, Nairobi, Kenya. 06/2011 – 09/2011

Performed the bank's first ever dormant account analysis creating a report that highlighted common trends in dormant accounts in record time and conducting agency branch visits to evaluate the compliance to bank's policies and procedures.

### **HONORS AND AWARDS**

- Passed Society of Actuaries Exams P and FM, 2010.
- University Fellows Award, University of Arizona, Merit scholarship awarded to incoming Ph. D students. \$ 43,348.00, 2015.
- Student and early career travel award, American Statistical Association, Symposium on Statistics and Data Science, 05/2019.
- University of Arizona, Graduate Interdisciplinary Program in Statistic, Travel Award, 2019.
- Joint Diversity Mentoring Travel Award, American Statistical Association, 2016.
- Pre-University Scholarship, Equity Bank Limited, Kenya, 2007.

### **COMPUTING SKILLS**

- R, SAS, STATA, and LATEX.
- Basic C++, SQL and VBA programming knowledge.
- Microsoft Word, Excel and PowerPoint.

### **PRESENTATIONS**

- *A Maximum Likelihood Method for Correlated Discrete and Continuous Outcomes with Selection, Lagged Effects and Variance.* Poster presentation at the Symposium on Data Science and Statistics, American Statistical Association, Bellevue, WA. May 30, 2019.
- *Endogeneity lagged effects and heterogenous variance in correlated discrete and continuous dependent variables.* Short presentation to prospective statistics graduate students at the University of Arizona recruitment event, Tucson, AZ. March 11, 2019.
- *A Maximum Likelihood Method for Correlated Discrete and Continuous Outcomes with Selection and Lagged Effects: Quantifying the Role of Past Season Yield on Improved Maize Seed Adoption.* Poster Presentation at the Conference on Statistical Practice, American Statistical Association, New Orleans, LA. Feb.16, 2019.
- *Endogeneity and lagged effects in correlated discrete and continuous dependent variables: Risk and agricultural technology adoption.* Poster Presentation at the University of Arizona Graduate Interdisciplinary Program Student Showcase, Tucson AZ. Dec. 4, 2018.

### **SESSIONS CHAIRED AT PROFESSIONAL CONFERENCE**

- Session Chair, Conference on Women in Statistics and Data Science, American Statistical Association, Cincinnati, OH, Feb 16, 2019.

### **CONFERENCES ATTENDED**

- Took the course, "Developing an R package from scratch" at the Conference on Statistical Practice, American Statistical Association, New Orleans, LA, Feb. 15, 2019.
- Took the course, "Shiny package for R" at Women in Statistics and Data Science, American Statistical Association, Cincinnati, OH, Feb 15, 2018.
- Attended Conference on Bayesian Inference in Econometrics and Statistics, National Bureau of Economic Research – National Science Foundation, Stanford University, Palo Alto, CA, May 25, 2018.
- Attended Diversity Workshop at Joint Statistical Meetings, American Statistical Association, Chicago, IL, July 31, 2016.

### **VOLUNTEER ACTIVITIES**

- Volunteer, Habitat for Humanity as a University of Arizona fellow. 2016.
- Volunteer, St Paul UMC Food Bank, Tucson. Distributed food boxes and provided customer service to clients. 2013.
- Volunteer, Eldoret Hospice Open Day, Providing Company and cooking for terminally ill children. Eldoret, Kenya. 2013.

### **LEADERSHIP SKILLS**

- Developed leadership and presentation skills as a University Fellow recipient through weekly seminars and workshops.

- Developed excellent management skills teaching college algebra.
- Served as team leader throughout my high school and campus years in academic discussions and spearheaded the research project delegating and supervising duties to ensure the project was completed in time.

#### **PROFESSIONAL SOCIETY MEMBERSHIP**

- Member, American Statistical Association 2016 – Present.

#### **RESEARCH PAPERS**

- Endogeneity in production risk studies of agricultural technology adoption, working paper of my PHD dissertation, Rhoda Muse and Satheesh Aradhyula
- Determinants of stunting among children in Guatemala, research paper submitted in the micro economics of development class, Rhoda Muse, Chris Salters, Mustofa Mahmud and Stephen Oliver
- Analyzing the Survival Rates of Ebola Patients in application to Sierra Leone, research paper submitted in the survival analysis class.