# Zenabu Suboi

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## **EDUCATION**

Master of Science, Mathematics

Expected October 2020

Stellenbosch University, Stellenbosch - South Africa

Master of Science, Mathematical Science

June 2018

African Institute for Mathematical Sciences (AIMS) University of Capetown, Cape Town - South Africa

Bachelor of Science, Mathematical Science

July 2016

University for Development Studies, Tamale - Ghana

Major: Statistics Minor: Mathematics

# MASTERS THESIS 2

Title - A Comparison of Methods for Approximate Bayesian Computation (ABC),

Expected October 2020

Supervisor 1 - Dr. Christijan Marijn Hazelbag, Researcher, SACEMA Supervisor 2 - Prof. Wim Delva, Researcher, Stellenbosch University

Description - We compared performance of two methods for ABC (Rejection and Sequential) in a simple SIR and Individual based model(IBM) simulation settings, where Rejection ABC with a reasonably small tolerance was used as the reference.

# MASTERS THESIS 1

Title - Comparing Post-sampling correction Methods for Approximate Bayesian Computation (ABC),

June 2018

Supervisor 1 - Dr. Christijan Marijn Hazelbag, Researcher, SACEMA Supervisor 2 - Prof. Wim Delva, Researcher, Stellenbosch University

Description - We compared performance of different post-sampling correction methods (Local linear and Neuralnet) with Rejection ABC with a small tolerance and no correction in a simple SIR model simulation setting, where Likelihood estimation was used as the gold standard.

# UNDER-GRADUATE THESIS

Title - Size Biased Exponential Distribution

Supervisor - Dr. Nasiru Suleman, Lecturer, University for Development Studies-Ghana

Description - We proposed a size biased exponential distribution using weighted distributions.

# HONORS AND AWARDS

- Overall Best Graduating Female in the Faculty of Mathematical Sciences 2016 University for Development Studies-Ghana
- Alumni award for Best Graduating Female Student University for Development Studies-Ghana

2016

### WORKSHOPS

Introduction to R: Management, Exploration, and Communication of Data 12
 16 August 2019

Stellenbosch University, Stellenbosch - South Africa

Description - Aimed at equipping participants on how to manage and explore data using tidyverse.

• Academic Writing: Literature Reviews 26 - 27 June 2019 Stellenbosch University, Stellenbosch - South Africa Description - Aimed at postgraduate students writing their literature reviews – whether as part of a research proposal, a thesis, or as an independent article.

• Clinic on Meaningful Modeling of Epidemiological Data (MMED) May 27 - June 7, 2019

Muizenberg, Cape Town - South Africa

Description - The clinic focused on training junior researchers from the US and Africa to conduct integrative research in infectious disease dynamics and to communicate our questions, methods, and findings across disciplinary boundaries.

Mathematical Modelling OF Infectious Diseases (MMID) 6 - 17 May 2019
 University of Cape Town , Cape Town - South Africa
 Description - Application of mathematical modelling and computer simulation to predict the dynamics of infectious diseases to evaluate the potential impact of policy in reducing morbidity and mortality.

# COMPUTER SKILLS

Microsoft Office, LaTex

SPSS, R

SAGE 7.4, iPython

## **EXPERIENCE**

## Teaching Experience

Tutor February - June 2018

GrandWest Kulani High Saturday Maths Project, AIMS-SA

• Tutored High School students in mathematics under the African Institute for Mathematical Sciences (AIMS-South Africa) Schools Enrichment Centre.

Teaching Assistant

September 2016-August 2017

University for Development Studies, Statistics Department, Navrongo, Ghana

- Handled tutorial lessons on Experimental Design in statistics.
- Assisted lecturers in conducting examinations and grading students.
- Assisted some students with their thesis.

Teacher and Form Mistress

September 2011-August 2012

Abusco Royal School, Obuasi, Ghana

- Taught primary six students for a whole academic year.
- Conducted end of term examinations and graded them.

# Field Work

Internship

May 2015-July 2015

Seventh Day Adventist Hospital, Obuasi, Ghana.

• Understudied the biostatistician in the biostatistics unit.

• Handled patients' confidential data

Third Trimester Field Practical Programme

2013-2014

- Stayed in rural community for three months and mingled with the inhabitants in each year.
- Identified its most pressing needs and presented a budget of it to the municipal assembly.

### Leadership Experience

Welfare Secretary

May 2019 to date

Association of Ghanaian Students in Stellenbosch University (AGSSU), Stellenbosch University, Stellenbosch, South Africa.

- Worked with other executives as a team.
- Saw to the welfare of Colleague students

President

March 2015-March 2016

National Union of Baptist Students, University for Development Studies, Navrongo, Ghana.

- Worked together with the group as a team.
- Took final decisions on behalf of the group
- Implemented ideas of the people
- Represented the group at the Students christian council.

# COMMUNITY SERVICE

GrandWest Kulani High Saturday Maths Project, AIMS-SA February - June 2018 We volunteered to tutor students in mathematics under the African Institute for Mathematical Sciences (AIMS-South Africa) Schools Enrichment Centre.

Participated in community visits

2015-2016

We visited and gave out clothes and other materials to the needy in the deprived communities for Christmas in December each year.

## LANGUAGES

English - Proficient

Dagaare - Fluent

Akan - Fluent

## REFEREES

• Dr. Marijn C. Hazelbag, Researcher, DST-NRF South African Centre of Excellence in Epidemiological Modeling and Analysis (SACEMA), Stellenbosch University

Email - marijnhazelbag@sun.ac.za

Prof. Jeff Sanders, Academic Director, African Institute for Mathematical Sciences

Email - jsanders@aims.ac.za

• Dr. Nasiru Suleman, Lecturer, University for Development Studies-Ghana Email - sulemanstat@gmail.com