

Rwakazooba Ezra Aliija

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Profile

Rwakazooba Ezra is a computer scientist, with enthusiasm for data, and a passion for data science. He believes in the effective use of inference from data to aid decision-making.

Education

MSC. COMPUTER SCIENCE (CANDIDATE) | 2017 | MAKERERE UNIVERSITY

B. COMPUTER SCIENCE | 2012 | MBARARA UNIVERSITY OF SCIENCE AND TECHNOLOGY

Skills & Abilities

Advanced Python programmer.

Data analysis and Visualization- Python, Stata and R

Data collection tools programming (Open Data kit (ODK), SurveyCTO, SurveySolutions, blaise)

Report writing – LaTeX

Geographic Information System (GIS) skills using tools such as ArchGIS. QGIS and Python

Experience

WORLD BANK –SHORT TERM CONSULTANT 2015 – July 2016

My main roles so far have been:

- Providing Data oversight for Data collection in Kigali, Rwanda. Supervised data collection in up to **3000** households in the three districts of Kigali City.
- CAPI (Computer Aided Personal Interviews) instrument development in Survey Solutions, which is a world bank CAPI tool.
- **Enumerator and supervisor training**, mainly on the use of the software but also on the survey instrument prior to data collection.
- I also monitored in field pilot exercises to ensure the enumerators were following field protocol and had an integral understanding of the questionnaire.
- I also incorporated feedback from the **Pilot** exercises to reinforce and make the questionnaire better.
- I was responsible for programming and ensuring the translated version of the questionnaire is up to the standard of the original English survey instrument.
- I set up and manage the server side for all interviews submitted, and also allocated interviews to the enumeration team.

I also took part in developing/programming the agricultural plot-listing questionnaire, and monitoring the listing exercise, to ensure that GPS coordinates of agricultural plots were taken and parcels and households were visited as expected.

Research Assistant (Artificial Intelligence & Data Science Lab- Makerere) 2015 - TO DATE

My role here has been mainly to build the server side software for a Mobile microscopy project named – *OCULA* that aides remote and automated detection of plasmodium in a blood smear using machine learning and computer vision techniques. <http://www.air.ug/microscopy/>

The exposure and use of cutting edge techniques in Data Science at the Lab, has further sharpened my skills with Data and programming.

SENIOR DATA MANAGER | INNOVATIONS FOR POVERTY ACTION | 2013 TO MARCH 2016

Survey/Questionnaire Programming

In this role, my specific objective was to transform the usually paper based research questionnaires in to an electronic form, with skip logic incorporated as well.

I designed programming timelines and advise management on what possible things need to be changed or considered for an effective data collection.

This role led to the development of a survey prototype to test.

To ensure data quality, I also took on the responsibility to build, audit surveys/ back checks that helped to identify any errors early enough in the data collection process.

Training and in field support

I was responsible for the Computer Aided Interview (CAI) training of the enumerators and auditors during the training days, this range from introducing the enumerators and auditors to specifics of the survey, that is, logic checks and meanings of possible warning messages.

At times this role also includes basic pda (Portable Digital Assistant) or smartphone training.

At times unanticipated changes happen while in the field, my role is to find an efficient way to incorporate this change without affecting the general flow of the surveying experience. This can include debugging on the fly.

Data flow and presentation

A data collection process without a premeditated and or pre-perceived data flow could potentially lead to unpleasant outcomes.

Here in, before field work is launched, I set up the infield process for the smooth collection of data this includes, raw data versus clean data with checks and balances in place. All working to ensure data quality and oversight.

In this role, I organize the data/ write stata do-file's to present the expected variables as a data file (".dta") file as they appear in the initial survey document to the project lead/ Research Associate.

DATA OFFICER | INNOVATIONS FOR POVERTY-ACTION | 2012 TO 2013

As a data officer, I worked with multiple research studies mainly providing data support in field. I worked with data from community health projects, within rural communities, education studies of lower primary education for children in upcountry settings, where I supported with massive interventions of distribution of scholastic materials such as exam papers.

Herein, I also participated with collection and transcription (audio to text) of data within the multiple focused groups held in multiple research studies, where I worked closely with Research Associated to transcribe all the data collected within the small groups carried out in a the East and western part of Uganda.

INTERN | WORLD FOOD PROGRAMME | 2011 TO 2011

As an intern at World Food Programme, I worked on a power usage and efficiency project, this was to be my first encounter with data-centric projects. I was herein responsible for collection of power usage statistics within the office and entry of this data into the system then.

In addition, I took on additions help desk activities at the office, and momentarily took field trips to support field offices as well.