

CURRICULUM VITAE

PERSONAL INFORMATION

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CAREER OBJECTIVE

To leverage my expertise in statistics, programming and information technology to provide innovative, data-driven solutions and effectively address complex statistical and IT challenges.

February 2025 – September 2025

Organization- KEMRI/CGHR

Projects: Implementation of Point of Care HIV Viral Load Monitoring to improve Viral Load Suppression among Children and Adolescents Living with HIV in East Africa. (EAPoC-VL)

Roles and Responsibilities

- **Data Management:** Conducted routine data cleaning and validation to ensure accuracy, consistency, and readiness of datasets for analysis.
- **Generating Reports and Queries:** Generated reports and queries from data cleaning processes to enhance data understanding and collaborated with project teams to resolve emerging data issues.
- **Statistical Analys:** Partnered with statisticians to produce high-level statistical outputs. Contributed to the publication committee by providing statistical input and support for manuscripts.

October 2024 – November 2024

Organization- KEMRI/CGHR

Projects: Climate Change and Wearable Technology: Assessing the Impact on Malaria and HIV in Siaya, Kenya

Roles and Responsibilities

- **Developing Mobile Data Collection Tools:** Designed and deployed mobile data collection systems using **Survey Solutions**, ensuring seamless field data capture and synchronization.
- **Data Management:** Utilized Python and R for data cleaning, wrangling, and

- preprocessing, ensuring high-quality and actionable datasets for analysis.
- **Automating Reporting:** Created automated workflows in R and Python to generate detailed progress reports, streamlining monitoring and evaluation processes.
 - **Supporting Field Operations:** Collaborated with field teams to troubleshoot data collection issues and optimize workflows for efficiency.

February 2023 – September 2024

Organization- KEMRI/CGHR HISS BRANCH

Projects: Determined, Resilient, Empowered, AIDS-free, Mentored and Safe (DREAMS)

Roles and Responsibilities

- **Developing Mobile Data Collection Tools:** Designed, configured, and deployed Survey Solutions for efficient and reliable field data collection, ensuring seamless data synchronization and real-time monitoring.

- **Data Management:** Applied advanced techniques in Python and R to clean, transform, and preprocess large datasets, ensuring accuracy and readiness for analysis.
- **Automating Reporting:** Developed automated reporting pipelines using R and Python, enabling the generation of detailed, timely progress reports that supported decision-making and improved project tracking.
- **Field Operations Support:** Worked closely with field teams to resolve technical challenges in data collection, provided training on tools, and implemented workflow improvements to enhance operational efficiency.
- **Member of the Quantitative Data Analysis Working Group (QDAWG):** Collaborated with a multidisciplinary team of researchers from KEMRI/CGHR, African Population and Health Research Center (APHRC), and the London School of Hygiene & Tropical Medicine (LSHTM). Contributed to the analysis and interpretation of field-collected data, leveraging advanced statistical methods to generate actionable insights and support evidence-based decision-making.

May 2018 to January 2023

Organization- KEMRI/CGHR HISS BRANCH

Projects: Longitudinal Bio-Behavioural Survey

Roles and Responsibilities

- Actively participate in data analysis to tease out insights from the data collected
- Program and train the field staff on the use of the mobile data collection tool
- Design the questionnaire to be used in the data collection
- Clean the data coming from the field
- Generate data queries based on the available data then resolve them
- Prepare daily and weekly reports on the study progress
- Preparing all other necessary tools that facilitate data collection in the field
- Provide support to the young upcoming statisticians by training them and giving counsel where necessary.

October 2017 to April 2018- Data entry staff

Organization- KEMRI/CGHR MALARIA BRANCH

Project: Safety, Tolerability and Efficacy of PfSPZ Vaccine

Roles and Responsibilities

- Data entry using Advantage EDC
- Performing data cleaning procedures using Stata, MS Access, MySQL

- Checking discrepancies between the e-crf and paper crf and query such inconsistencies
- Performing data analysis using SPSS
- Checking for completeness in the paper crf
- Generating the missing forms data from the project's server
- Solving and generating queries
- Performing quality control to ensure integrity, accuracy and completeness
- Consistently generate standard statistical reports

October 2016 to October 2017- Data Intern

Organization- KEMRI/CGHR MALARIA BRANCH

Project: Safety, Tolerability and Efficacy of PfSPZ Vaccine

Roles and Responsibilities

- Designing and programming research tools such as ODK, Epi Info and CommCare
- Data entry using Advantage EDC
- Data entry using Commcare
- Performing data cleaning procedures using Stata, MS Access, MySQL
- Checking discrepancies between the e-crf and paper crf and query such inconsistencies
- Performing data analysis using Stata
- Performing data analysis using SPSS
- Checking for completeness in the paper crf
- Generating the missing forms data from the project's server
- Solving and generating queries
- Performing quality control to ensure integrity, accuracy and completeness
- Consistently generate standard statistical reports
- Preparing statistical reports on the state of data entry

May 2016 to July 2016 - Attaché at KEMRI/CDC-Malaria data section

Skills Acquired:

- Data entry using ODK collect, CommCare, Kobo Collect, Survey CTO, EpiInfo
- Creation of interfaces used in data entry
- Data cleaning using Ms Access, Teleform software, SPSS, Stata
- Data analysis using Stata, SPSS, R, MS Excel, MS Access

EDUCATIONAL BACKGROUND

1. Bachelor of Science Degree in Mathematics (Statistics option) from September 2012 to December 2016 – Masinde Muliro University of Science and Technology
2. Kenya Certificate of Secondary Education from January 2008 – November 2011
Chianda High School Grade Attained: B+
3. Kenya Certificate of Primary Education from January 1999 – November 2006
Rm Gudka Memorial Attained 395/500 marks

SKILLS

STATISTICS

- **Advanced Statistical Analysis & Data Management** - Skilled in applying advanced statistical methods for data analysis and managing complex datasets to extract meaningful insights.
- **Proficient in R** - Strong expertise in R programming for statistical modeling, data visualization, and hypothesis testing.
- **Working Knowledge of Python** - Experienced in utilizing Python for data manipulation, analysis, and machine learning applications.
- **Advocate for Reproducible Research** - Committed to promoting best practices in reproducible analysis by using version-controlled code, structured workflows, and clear documentation.
- **Machine Learning** - Knowledgeable in applying machine learning algorithms for predictive modeling, classification, and data-driven decision-making.

PROGRAMMING

- **Mobile Data Collection Platforms**: Proficient in configuring and deploying Survey Solutions, CommCare, ODK Collect, EpiInfo, and Kobo Collect for efficient data collection and management.
- **Task Automation**: Experienced in Batch programming for automating repetitive tasks and optimizing workflows.
- **Version Control**: Skilled in using Git for version control, ensuring collaborative and efficient code management.
- **Web Development**: Expertise in designing and managing websites using WordPress with proficiency in HTML, CSS, Bootstrap, and JavaScript for creating responsive and user-friendly web interfaces.
- **File Transfer Protocols**: Adept at secure file transfers using SFTP and FTP tools like WinSCP.

- **Programming Languages:** Working knowledge of C#, C, and C++, enabling problem-solving and development in diverse programming environments.

DATABASES

- Proficient in **MySQL, SQL Server, and PostgreSQL** for designing, managing, and querying relational databases to support data-driven applications.
- Experienced in using **Microsoft Access** for creating and managing lightweight database solutions.

BUSINESS INTELLIGENCE DASHBOARDS

- Proficient in creating interactive and insightful dashboards using Power BI, Tableau, and Shiny, enabling data visualization and decision-making support.

COMPUTER SKILLS

- Proficient in Microsoft Office Suite, including Word, Excel, Access, and PowerPoint, with expertise in document creation, data analysis, database management, and professional presentations.

PERSONAL STRENGTHS AND ATTRIBUTES

- **Team Player:** Effective collaborator, committed to fostering a supportive and inclusive team environment.
- **Self-Motivated and Goal-Oriented:** Works independently to meet targets and deadlines with minimal supervision.
- **Hardworking and Committed:** Demonstrates persistence and dedication in achieving objectives and overcoming challenges.
- **Strong Leadership Skills:** Proven ability to inspire and guide teams towards success, with excellent communication and decision-making abilities.
- **Adaptability:** Quickly adjusts to changing conditions and new information, demonstrating flexibility and resilience.

INTERESTS AND CO-CURRICULAR ACTIVITIES

- **Learning New Programming Languages** - Passionate about staying current with emerging technologies and expanding my technical skillset.
- **Web Design** - Enthusiastic about creating aesthetically pleasing and functional websites, exploring new design trends, and improving user experience.
- **Socializing** - Enjoy engaging with diverse groups of people, exchanging ideas, and building meaningful connections.
- **Reading Books** - Avid reader with a particular interest in topics related to technology, business, and personal development.

MANUSCRIPTS

- Prevalence and risk factors of sexually transmitted infections in the setting of a generalized HIV epidemic-a population-based study, western Kenya
- DREAMS impact on HIV status knowledge and sexual risk among cohorts of young women in Kenya and South Africa
- Impact of the DREAMS Partnership on social support and general self-efficacy among adolescent girls and young women: causal analysis of population-based cohorts in Kenya and South Africa.
- The long-term impact of HIV/AIDS on socio-economic status: a comparative analysis of households headed by HIV-positive and HIV-negative individuals in Western Kenya.
- Awareness and uptake of the Determined, Resilient, Empowered, AIDS-free, Mentored and Safe HIV prevention package over time among population-based cohorts of young women in Kenya and South Africa.

REFEREES

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