

Kassim Sheghembe

Block 375 Regent Estate, Mikocheni 'A', Dar-es-Salaam • +255754087896 • sheghembekassim@gmail.com

- 2017 Recipient of the Julius Nyerere full scholarship to the University of Edinburgh
- MSc Informatics from the University of Edinburgh awarded with merits in November 2018
- B.E. Information System and Network Engineering at St. Joseph University, Dar Es Salaam: graduated 1st in class
- An avid software engineer with an eye for detail
- 6+ years' experience in Software Engineering specializing in Mobile development, DevOps and Data engineering
- 4.5 years' experience as ICT Developer for a Canadian charity: Farm Radio International
- Bilingual: English and Swahili
- Enthusiastic, energetic, team player, receptive to change, fast learner, problem solver, motivator of people.

Skills

- **Machine Learning:** TensorFlow, Keras with GPU
- **Data Analytic and Engineering:** ETL/ELT tools (Airbyte, Airflow, Apache Spark), Visualizations (Sisense Periscope, Apache Superset, D3)
- **Programming Languages:** Java, PHP, NodeJS, C++, Python, JavaScript, Kotlin
- **Platforms:** Java Spring (Java), Meteor (JS), Python Flask, Angular, Bootstrap
- **Cloud Computing Platforms:** GCP, AWS
- **Mobile App Development:** Android, Flutter (Beginner), Java/Kotlin (intermediate)
- **Operating systems:** Windows and Unix (i.e. Linux)
- **Databases:** SQL, MySQL, Couchdb, MongoDB, Postgresql
- General understanding of **Microservices**

Professional Experience

Senior Software Engineer

D-Tree, Dar es Salaam, Tanzania

June 2019 - Present

As a software engineer with expertise in data engineering and analytics, I am able to design and implement data pipelines, integrate data from multiple sources, and perform data analysis and visualization. I use data extensively to inform our stakeholders on the overall performance of the system and suggest areas of improvement in our software development processes

- Design and build Opensrp-based Android applications used by over 150 pharmacies and over 200 community health workers
- Design and implement data pipelines processes to feed data into our data visualization tools from the application servers for analytics
- Implement systems to integrate systems with government systems like DHIS2 through APIs
- Manage D-Tree's cloud infrastructure hosted on AWS, for inhouse hosting of open sourced digital health tools
- Deploy and manage a staging environment OpenSRP server for development

Digital Innovation Specialist (Consultation)

Farm Radio International (FRI), Arusha, Tanzania

Nov 2018 - May 2019

I evaluated and provided technical support to the "Uliza Answers" pilot project which focused on providing on-demand answers to farmers questions.

- Evaluated the "Uliza Answers" service, provided insights and recommendations to FRI on scaling the project
- Recruited and trained a Digital Innovation (DI) officer on the ICT services that FRI offers to their 12 partner radio stations to improve interactivity

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- Conducted an analysis and proposed a human-centered design strategy for FRI to adopt

Information Communication Technology (ICT) Officer Team Leader

Farm Radio International (FRI), Arusha, Tanzania

Jan 2013 - Aug 2017

Designed and implemented modern ICT approaches using SaaS platforms to support small scale farmers. I also led the team of 7 ICT officers in 8 countries.

- Uliza Platform
 - Developed Uliza, a custom web frontend for real-time listener interaction by partner radio stations.
 - Integrated Uliza with both Telerivet and Viamo to deliver and manage SMS/IVR-based listener engagement workflows
 - Enabled radio stations to view, filter, and respond to incoming messages through a user-friendly dashboard built on top of the Telerivet and Viamo APIs
 - Improved visibility and responsiveness of broadcasters by providing real-time insights into audience feedback and questions
- Telerivet & Viamo SaaS Platforms
 - Built and managed logic-driven communication workflows using Telerivet's and Viamo's self-service dashboards and REST APIs
 - Automated data collection and message scheduling to streamline listener interaction, surveys, and content feedback
 - Utilized built-in analytics tools to monitor campaign performance and improve content targeting

Education

University of Edinburgh

MSc Informatics, Julius Nyerere Scholarship

Sept 2017-Sept 2018

Courses: Machine Learning, Natural Language Processing, Bioinformatics, Advanced Database System

Dissertation: Adaptive Comparative Judgment Algorithm for Assessment

St. Joseph University in Tanzania

B.E Information Systems and Network Engineering (First Class)

2008-2012

Courses: Software Engineering, Database Management Systems, Programming languages (C, C++, Java and Web Technologies), Computer System Security

Courses and Volunteering

- D3 Master Class (JavaScript Framework for Data Visualization): **in progress**
- Board Member, Lexis Schools, Dar es Salaam, Tanzania: **2024-present**