

DIEUDONNÉ NDAMBAKA ASSUMANI

Software Engineer · Production Cloud Data Systems · Python / Django / AWS

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PROFESSIONAL SUMMARY

Software engineer with 4+ years building, owning production web, and mobile systems end-to-end, from problem definition through deployment and ongoing support. Strong in Python, Django, React and AWS, with proven success delivering data-driven applications in low-resource, high-ambiguity environments. Built OpenCaret CHE, now the community-level data-collection tool deployed across Burundi that feeds primary field data up to the national health database (DHIS2) — a production data pipeline operating at national scale. Comfortable embedding directly with non-technical domain experts (health workers, trainers, field staff), translating their needs into reliable software, and leading small teams to delivery. Eager to apply these skills to mineral exploration data systems and to contribute on-site in the DR Congo.

TECHNICAL SKILLS

Languages: Python, Dart, JavaScript, SQL, HTML5/CSS3

Frameworks & Libraries: Django, Next.js, React.js, Flutter, RESTful APIs

Cloud & Data: Amazon AWS, Firebase, SQL & NoSQL databases, DHIS2 integration, offline-first data sync

DevOps & Tooling: Git, Docker, Codemagic CI/CD, automated testing, code review

Other: Geolocation / map-based features, project management, technical training & documentation

PROFESSIONAL EXPERIENCE

Software Developer — *MUHECASH SA — Bujumbura, Burundi* Jan 2023 – Present

- Develop and maintain production web and mobile applications serving end users in a fintech context.
- Perform corrective maintenance and resolve defects to meet evolving end-user needs.
- Build automated tests to guarantee correct behaviour and catch regressions before release.
- Participate in regular code reviews to uphold code quality and team-wide standards.

National Expert (Software) — *INTERCONNECTING Burundi — Muyinga, Burundi* Sep 2024 – Dec 2024

- Led the official launch of the digitalised community Health Information System using OpenCaret CHE, supported by Memisa Belgium.
- Developed, adapted and shipped updates to the OpenCaret CHE application for field deployment.
- Trained and supported trainers on Android devices and the application, and designed hands-on exercises to embed new skills.
- Ran regular assessments of trainees' progress and competency acquisition.

National Expert (Software) — *ICT4Development – Post-Factum — Muramvya, Burundi* Aug 2023 – Oct 2023

- Contributed to action research on digitalising Burundi's community HIS with integrated epidemiological surveillance.
- Developed and updated OpenCaret CHE; trained and supported field users on Android smartphones and the application.
- Provided personalised support to learners facing difficulties and evaluated their progress.

Technical Director — *Mados Group — Bujumbura, Burundi* Aug 2022 – Dec 2023

- Owned projects end-to-end from design to delivery, demonstrating leadership across the full lifecycle.
- Ran regular team meetings to track progress, prioritise tasks and resolve blockers under deadline pressure.

- Rapidly learned new concepts and handled urgent situations calmly to meet client expectations.

Mobile Developer — *Mados Group — Bujumbura, Burundi* Feb 2022 – Dec 2023

- Designed and implemented attractive, functional user interfaces in Flutter for Android and iOS (Dart).
- Built RESTful APIs to connect mobile apps with back-end servers.
- Used Git for version control and collaboration; followed clean, modular, maintainable coding practices.
- Owned the full publishing process to the App Store and Google Play, and authored technical documentation.

IT Technician — *Chamber of Commerce ITALIA-AFRICA Grands Lacs — Bujumbura, Burundi*
Feb 2020 – Dec 2021

- Installed and configured hardware, workstations and software; performed updates and maintenance.
- Configured and troubleshoot local (LAN) and wide-area (WAN) networks; developed software and graphic design assets.

SELECTED PROJECT

OpenCaret — Community Health Edition

- Led the full software development lifecycle of a robust, user-friendly app for community health workers, from concept to deployment.
- OpenCaret CHE is now the data-collection tool used at community level across Burundi, capturing primary health data in the field and aggregating it up to the national health database (DHIS2) — a production system operating at national scale.
- Implemented mobile data-collection enabling field staff to track patient information and aggregate primary data at scale.
- Engineered offline-first functionality for uninterrupted use in areas with limited internet — directly relevant to remote exploration sites.
- Built the end-to-end pipeline from field-level capture to national reporting, ensuring interoperability with DHIS2 plus local patient management, referral and geolocation features.
- Added configurable multilingual support, improving usability across diverse cultural and linguistic contexts.
- Officially piloted by Burundi's Ministry of Public Health across three community health centres; the Minister of Health formally recommended national scale-up of the application, and the national telecom regulator (ARCT) authorised free mobile data access for the app given its community impact.

EDUCATION

B.Sc. Software Engineering — Information & Technology — *International University of Equator — Bujumbura*
Oct 2019 – Dec 2022

Diplôme d'État — Commerce & Management — *Institut Mwanga Stella Maris — Uvira, DR Congo*
Sep 2013 – Jul 2019

LANGUAGES

French (native) · **Swahili** (fluent) · **English** (working)

REFERENCES

Patrick Muheberintwari — CEO, MUHECASH SA — muheberintwari@yahoo.fr

Frank Verbeke — CEO, ICT4Development – Post-Factum — frank@ict4d.be

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