

Jonathan Ajal Odora

Full-Stack Software Developer

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📍 Nsambya, Kampala, Uganda

📅 Born: February 12, 1999 | Nationality: Ugandan

Professional Summary

Results-driven Full-Stack Developer with over 4 years of hands-on experience in designing, building, and maintaining scalable health informatics systems. Skilled in both frontend and backend technologies, with a proven track record of delivering production-grade solutions. Passionate about interoperability, performance optimization, and user-centric design, with strong leadership in agile environments.

Technical Skill Set

Frontend Development

Languages & Frameworks: React.js, TypeScript, JavaScript, HTML5, CSS3, SCSS

Design & Architecture: Component-based architecture, micro-frontends (Single-SPA), Carbon Design System, Material UI, Vue JS

Tools & Libraries: Redux, SWR, Webpack, i18next, Jest, ESLint, Node

UX/UI: Responsive Design, Unit Testing, Form Validation, Pagination, Dynamic Tables

Backend Development

Languages & Frameworks: Java, Spring Boot, Hibernate, Python (basic scripting)

API Design: RESTful API development, custom FHIR endpoints (InventoryItem, InsurancePolicy)

Databases: MySQL, PostgreSQL; schema versioning with Liquibase

Security & Validation: Role-based access, backend validation, unit testing

DevOps & CI/CD

Docker, Kubernetes, GitHub Actions, Jenkins, Bash scripting, Tomcat deployments

Healthcare & Interoperability

Platforms: OpenMRS, UgandaEMR, ODK+

Standards: HL7, FHIR (R4), HAPI-FHIR integration

Reporting: PowerBI, dashboard analytics, reporting indicators

Professional Experience

Software Developer — HISTAC, Makerere University School of Public Health

 Kampala, Uganda |  Oct 2021 – April 2025

- Developed OpenMRS HIV Reference Implementation (OHRI) with full-stack capabilities
- Built and maintained multiple OpenMRS modules (billing, appointments, inventory)
- Implemented paginated, performant REST and FHIR APIs using Spring Boot
- Designed complex UIs for patient dashboards, invoices, and dynamic forms using React/TypeScript
- Handled database migrations and consistency using Liquibase
- Deployed applications via Docker and Kubernetes clusters
- Acted as Scrum Master and facilitated agile development sprints
- Develop and enhance country implementations of OpenMRS
- Develop Rwanda EMR transitions from the 2.x version of openmrs to the O3 version with full development of the national billing requirements and customized appointments

Key Achievements:

- Integrated FHIR R4 InventoryItem resources into OpenMRS custom modules
- Refactored billing workflows for partial payments and real-time UI state updates
- Introduced modularized frontend patterns for reusability across OHRI components

Health Informatics Systems Intern — University of California, San Francisco (UCSF)

 Kampala, Uganda |  Feb 2020 – Sep 2021

- Served as HIV Recency Program focal person across several districts
- Developed interoperability middleware between UgandaEMR and DHIS2
- Built PowerBI dashboards to analyze patient retention, adherence, and recency uptake
- Participated in field deployments, user training, and digital health scaling

Key Projects & Contributions

- Billing Module (OpenMRS): Designed new APIs to support insurance policy linking, partial payments, and multi-modal receipts.
- FHIR Inventory Integration: Backported InventoryItem resources to R4-compatible

formats for stock management modules.

- Patient Observations Dashboard: Implemented paginated loading, reducing initial fetch load by 70%.
- OpenMRS Implementers Conference (Mozambique, 2019): Contributed to solutions on module interoperability and UI microfrontends.
- UgandaEMR Hackathon (2019): Developed standardized form tools for HIV programs using HFE XML and React.

Education

Bachelor's Degree in Business Information Systems – Bugema University (2018 – 2021)

Advanced & Ordinary Level Certificates – St Peter's Secondary School, Nsambya (2012 – 2017)

Core Competencies

- Agile Team Leadership – Scrum master experience, sprint planning, retrospectives
- Problem Solving – System debugging, performance optimization
- Cross-functional Communication – Comfortable working with clinicians, data teams, and developers
- Rapid Learning – Self-driven in adopting new frameworks and technologies

Languages

English: Fluent (Written & Oral)

Lango: Conversational

Kumam: Conversational

Interests & Hobbies

- Creative Arts: Photography, Music, Comics, and film critique
- Physical Wellness: Football, Baseball, Basketball and Rugby fitness routines
- Personal Growth: Time management, self-motivation strategies, Books
- Community: Volunteering in faith-based digital outreach programs

References

Daniel Kayiwa – Senior Software Engineer, OpenMRS

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Samuel Male – Software Developer, OpenMRS

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