How Rwanda Is Transforming Healthcare Through Digital Innovation

Overcoming paper-based inefficiencies to enable rapid invoice processing, fraud detection, and Al-driven automation

Lionel Ngendakuriyo | Technology & Systems Leader

Presenter | solution-polaris.com



Rwanda's Healthcare System Overcomes Paper Burdens

Empowering 13.8 Million with 91% Universal Coverage Amid Manual Challenges

Rwanda achieved **91% universal health coverage** for its 13.8 million people

Two main insurance schemes, **Rama and CBHI**, cover **95**% of insured individuals

Healthcare system burdened by **70,000**daily paper verifications

Processing one month of medical claims took **four months** to complete

Thousands of workers overwhelmed by manual handling of paper invoices

Crafting a Unique Digital Future for Health Coverage

Building a fully tailored, data-driven system that evolves with you



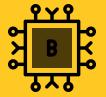
Rejected Off-The-Shelf Solutions And Outsourcing Plans



Emphasized That Universal Health Coverage Infrastructure Cannot Be Bought



Focused On Data As The Foundation For Modern Insurance



Committed To Building A Fully Tailored, Evolving, End-To-End Digital System

Transforming Health Benefits with Intelligent Automation

Launching a revolutionary platform that slashes processing time and enhances data visibility



Formed a dedicated team to design and implement the platform



Developed the Intelligent Health Benefit Platform from scratch



Cut invoice processing time from over 90 days to 15 days



Enabled full electronic data collection and central visibility



Marked the beginning of transformational progress



We used to guess. Now we measure. Technology unlocks data, and data trains models that get closer to the truth with every iteration. If you want outcomes that last, invest in technology. For this, I am the right person.

Lionel Ngendakuriyo

High Potential Partner



Transforming Healthcare with Data-Driven Insights

Unlocking full visibility and proactive fraud detection across every healthcare interaction

Captures comprehensive data: patient, family, facility, doctor, services, lab exams, drugs, diseases

Provides complete traceability of every healthcare interaction

Detects fraud such as multiple ultrasounds within a month

Identifies inappropriate antibiotic prescriptions linked to resistance

Uncovers overprescribing and phantom billing previously invisible

Drive Excellence with Intelligent Practitioner Scoring

Harness AI to distinguish malpractice, nudge better care, and revolutionize patient engagement



Platform trained with standard treatment guidelines and nomenclature



Scores practitioners, distinguishing malpractice from intentional fraud



Nudges behavior and incentivizes better medical practice



Gamifies patient engagement to **improve health outcomes**



Enables advanced payment mechanisms like capitation

Unlock Faster Payments and Smarter Enforcement with Custom Systems

Empowering Healthcare, Verification, Policymaking, and Compliance with Real-Time Precision



Healthcare facilities receive payments in **15 days** instead of 90+



Verification officers no longer manually check eligibility on paper



Policymakers develop smarter policies using real-time data and A/B testing



Enforces dual practice policy by detecting doctors working simultaneously in public and private clinics



Identifies pharma incentives through brand prescription patterns



Build AI To Support Verification Officers With Context And Intelligence



Implement Three Layers Of Verification: Patient Presence, Service Delivery, And Service Necessity



Platform Automatically Flags Fraud Patterns, Including Dual Practice Violations



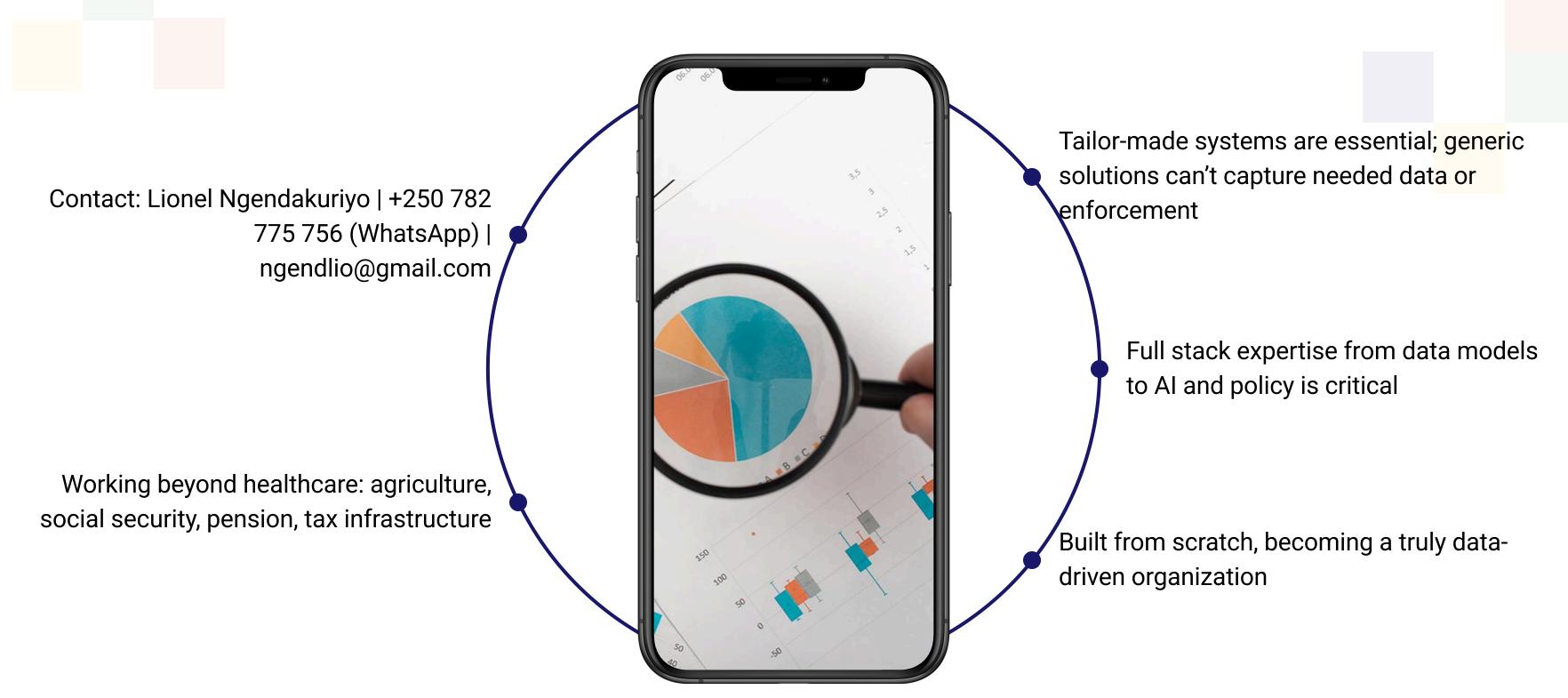
Automation Simultaneously Enhances Fraud Detection And Healthcare Quality

Empowering Healthcare Verification with Al and Automation

Harnessing intelligent systems to detect fraud and elevate care quality

Empower Data-Driven Change Across Sectors

Harness tailored systems and full-stack expertise to transform healthcare and beyond



Leading Complex Digital Transformations for National Impact

Focused on building sustainable systems that solve structural challenges and create measurable value for governments, institutions, and citizens. The Smart Nkunganire System demonstrated how inclusive design, solid architecture, and data-driven intelligence can transform inefficiency into national advantage. I bring **strategic clarity, technical precision, and disciplined delivery** to every challenge, ready to partner in designing next-generation national digital platforms that connect people, power economies, and make transformation measurable.

Lionel Ngendakuriyo

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