
MANDISO NGWENYA

SOLUTION ARCHITECT | SYSTEMS INTEGRATION | DIGITAL PLATFORMS

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PROFESSIONAL PROFILE

Solution architect, systems integrator and senior software engineer with more than ten years of practical technology exposure and over nine years in professional software, platform and integration roles. Experience spans non-life insurance, municipal workflows, funding administration, legal operations, commerce, financial services, public platforms and governed AI-enabled business systems.

Starts with the business outcome, maps users, rules, data, decisions, dependencies and risk, then turns complexity into clear architecture, integration flows, security boundaries, delivery controls and production-ready plans. Daily work moves between stakeholder discovery, architecture design, code and integration review, technical documentation, implementation guidance, evidence verification and production stabilisation.

ROLE ALIGNMENT

- Short-term / non-life insurance: Built the live Turnberry GetCovered digital gap-cover application.
- Design and governance: Produces solution baselines, HLDs, detailed designs, integration flows, NFRs, risks and approval gates.
- React and delivery literacy: Hands-on Next.js, Vue and Nuxt delivery with frontend-to-API architecture experience.
- Java literacy: Reads service structure and discusses architecture implications honestly; Java is not presented as the primary delivery language.
- Microservices and APIs: Modular services, REST contracts, gateway controls, messaging, versioning, retries, audit and observability.
- Cloud-native and IAM: Docker, Linux, PostgreSQL, Redis, JWT/JWKS, RBAC, tenancy boundaries, SSL, backup and recovery controls.

PROFESSIONAL EXPERIENCE

Founder / Solution Architect / Senior Full-Stack Engineer

Bordales Technologies | Apr 2025 - Present

- Leads architecture, product direction and hands-on delivery across cloud, workflow, ecommerce, legal-technology, public-platform and AI-enabled business initiatives.
- Shapes end-to-end solutions connecting workflows, users, data, permissions, integrations, reporting, infrastructure and support operations.
- Produces architecture baselines, implementation contracts, security controls, workflow specifications, acceptance gates and delivery evidence.
- Designs identity, tenancy and entitlement separation using Node.js/TypeScript gateway concepts, Symfony security boundaries, JWT/JWKS, PostgreSQL, Redis and Docker patterns.
- Leads REST API, Microsoft Graph, authenticated email, Meta WhatsApp webhook, RabbitMQ, SMPP, DNS, SSL and Linux operations work.
- Communicates public capabilities without exposing proprietary platform names, private infrastructure or protected implementation IP.

Contract Systems Engineer / Platform Modernisation Lead

Independent Consulting | Sep 2024 - Feb 2026

- Delivered analysis, stabilisation, backlog reduction and implementation across municipal, government, funding and commercial platforms.
- Supported City of Johannesburg permit workflows involving roles, stages, task allocation, approvals, invoicing, inspections and operational continuity.
- Enhanced KZN Tourism and Film funding workflows across application windows, documents, controlled invitations and role-aware administration.
- Reduced a substantial unresolved support backlog from hundreds of tickets to only a few remaining through disciplined triage and remediation.
- Translated stakeholder issues into implementation plans, acceptance criteria, test evidence, recovery documentation and maintainable changes.

PROFESSIONAL EXPERIENCE - CONTINUED

Full-Stack Developer / Solution Designer

WebGap | Feb 2020 - May 2024

- Built bespoke systems, integrations and public platforms across finance, insurance, tourism, recruitment, ticketing, ecommerce and operations.
- Delivered solutions using Laravel, Vue, Nuxt, Inertia, WordPress, PHP, JavaScript and external APIs.
- Led discovery, requirements analysis, solution design, implementation, deployment support and technical documentation.
- Delivered or contributed to work for Turnberry, SANParks, Izwe Loans, Respublica, Nutun, Grindrod, Giftwrap, Supply SA, Vumatel and Comsol.

Intermediate PHP Developer

MoreCorp | Sep 2019 - Feb 2020

- Launched the PWC Bikepark website and developed ordering and administration functionality for Dimples at the World of Golf.

Intermediate PHP Developer

FGX Studios | Jan 2019 - Sep 2019

- Worked on City Lodge CMS and website delivery, loyalty functionality, AutoTrader integration, mall data services and cinema-information APIs.
- Supported framework and PHP-version modernisation while preserving live client functionality.

Junior Software Developer

Opex Business Solutions | Apr 2018 - Dec 2018

- Developed PHP and JavaScript dashboards and scripts that converted raw operational data into KPI visibility.
- Contributed to Net Promoter Score and financial-needs-analysis platforms.

SELECTED EVIDENCE

Turnberry GetCovered - Live non-life insurance

Digital gap-cover application translating regulated application information, validation, consent-sensitive data and operational hand-off into a customer journey.

RAF matter management - Authored architecture artefact

Thirty-one-page technical specification covering business context, workflows, roles, data, application architecture, APIs, security, POPIA, NFRs, migration, DevOps, testing and five approval gates.

City of Johannesburg CPMS - Municipal enterprise workflow

Analysis and stabilisation of complex roles, stages, regions, task allocation, approvals, inspections, invoicing and production-support behaviour.

KZN Tourism and Film - Funding administration

Programme intake, role-aware administration, document handling, controlled invitations, application windows, testing and recovery evidence.

Giftwrap / Supply SA - Enterprise commerce

Quoting, procurement, product discovery, account workflows, Sage-connected processes, data synchronisation, SEO architecture and legacy modernisation.

Confidential multi-service platform - Governed architecture

Provider abstraction, modular services, IAM and entitlement boundaries, human approvals, audit evidence, isolated business contexts and controlled release patterns.

GovFin - Qualification verification product design

Query-first service design, onboarding, request workflows, secure documents, status tracking, administration, payment/SMS concepts and POPIA-conscious controls.

TECHNICAL CAPABILITY

Architecture and governance

Solution architecture, current and target state, HLD, detailed design, service boundaries, integration sequences, NFRs, risks, trade-offs, acceptance gates, UAT, migration and production readiness.

Languages and frameworks

PHP, Symfony, Laravel, Node.js, TypeScript, JavaScript, React/Next.js, Vue, Nuxt, Inertia.js, WordPress, HTML and CSS. Java code-reading and architecture literacy.

APIs and integration

REST APIs, API-led design, gateway concepts, JWT/JWKS, Microsoft Graph, Office 365, SMTP, webhooks, Meta WhatsApp Cloud API, RabbitMQ, SMPP and external services.

Data and workflow

PostgreSQL, MySQL, MariaDB, SQL Server, Redis, Doctrine ORM, operational datasets, reporting, role-based access, task allocation, approvals, document routing and dashboards.

Cloud and operations

Docker, Ubuntu, AlmaLinux, Linux VPS operations, DNS, SSL, reverse-proxy concepts, deployment troubleshooting, runtime management, backups, recovery and observability-aware support.

Security and regulation

IAM, RBAC, tenant separation, consent, auditability, secure file handling, POPIA-conscious solutioning and OWASP-aligned controls.

EDUCATION

National Diploma in Information Technology - Software Development

Durban University of Technology | 2014 - 2017

National Senior Certificate

Wyebank Secondary School | 2011 - 2013

CONTACT

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References and sanitised project evidence are available on request.