

Yvonne R. Gemandze

Senior Solutions Architect | Full-Stack Engineer | Quality Engineering & Automation

✉ yvonnegemandze@gmail.com

■ Buea, 00237, Cameroon

☎ +(237) 651 909 040

■ Portfolio / Profile: <https://yvonne.knfproperties.com/>

SUMMARY

Senior Solutions Architect, Full-Stack Engineer, and Quality Engineering & Automation Architect with over 8 years of software engineering experience, specializing in building reliable digital platforms, ecommerce solutions, and technology systems that support complex business operations. Proven track record of connecting complex business systems with modern, high-performing digital experiences while improving reliability, speed, and overall user experience. Experienced in leading technology projects, solving complex technical challenges, and working closely with clients, developers, and business leaders to deliver practical solutions. Strong communicator with experience leading high-impact technical discussions and working confidently with senior and C-level stakeholders.

CORE COMPETENCIES

Software Engineering & Architecture

- Full-Stack Application Development
- Platform & Solution Architecture
- API & Backend Development
- Frontend Application Development
- Backend-for-Frontend (BFF) Architecture
- Microservices & Modular Systems
- Cloud & Infrastructure Integration
- Database Architecture
- Event-Driven Applications

Quality Engineering & Testing

- Functional Testing
- Integration Testing
- Regression Testing
- API & Backend Testing
- Database & SQL Validation
- Security & Authorization Testing
- Role & Permission Testing
- Transaction & Financial Workflow Testing
- Concurrency & Race-Condition Testing
- Data Integrity & Migration Testing
- End-to-End Business Workflow Validation
- Automated Test Development
- Test Fixtures & Controlled Test Environments

Ecommerce & Digital Platforms

- Enterprise Ecommerce Platforms
- SAP Commerce Cloud / Hybris
- Product Catalogs
- Cart & Checkout
- Marketplace Platforms
- Transactional Workflows
- Dynamic Pricing
- Ecommerce API Integration
- Search & Content Discovery
- Multi-Currency & Multi-Language Platforms

Leadership & Delivery

- Technical Consulting
- Client Solutions Architecture
- C-Level Technical Communication
- Cross-Functional Team Leadership
- Agile & Sprint Facilitation
- Technical Problem Solving
- Requirements Analysis
- Technical Workshops
- Continuous Improvement

PROFESSIONAL EXPERIENCE

LEAD PLATFORM ARCHITECT | KNF PROPERTIES

2025 – Present

- Architecting secure and scalable digital platforms supporting property, ecommerce, verification, and transactional business processes.
- Leading the architecture and engineering of KNF Trust, a secure property verification and transaction platform designed to improve trust, transparency, and reliability in property transactions.
- Designed production-oriented PostgreSQL/PostGIS database architecture with strong controls around authentication, authorization, data ownership, evidence management, auditability, and transactional integrity.
- Developed and validated structured database migration and replay processes to ensure that critical system foundations can be reproduced consistently across controlled environments.
- Designed comprehensive SQL-based security and regression testing covering authenticated workflows, role boundaries, transaction controls, evidence protection, financial controls, and data integrity.
- Performed concurrency-focused testing of critical transactional workflows to identify race conditions and validate consistent behavior when competing requests occur simultaneously.
- Built controlled testing procedures for database permissions, object ownership, migration integrity, authenticated actors, and security boundaries.

- Applied Git/GitHub, Docker, PostgreSQL, PostGIS, SQL, and AI-assisted engineering workflows to support development, testing, debugging, and technical documentation.
- Architected decoupled API layers connecting property and ecommerce data systems with modern React and Next.js applications.
- Engineered Redis-based server-side caching strategies that reduced response latency to below 200ms while improving key user-experience performance measures.
- Led the transition of legacy monolithic functionality toward modular services using modern architectural principles, improving maintainability and deployment flexibility.
- Designed flexible multi-currency and multi-language data structures supporting international transaction and catalog requirements

SENIOR FULL-STACK SOLUTIONS ARCHITECT | CONGA PROJECT

2024 – 2025

- Designed and delivered a high-performance ecommerce Progressive Web Application using React, TypeScript, Vite, and Workbox.
- Built backend integration and orchestration layers that simplified complex business systems for modern web applications.
- Worked across frontend, backend, APIs, and supporting services to validate and improve critical ecommerce workflows.
- Integrated Meilisearch, Algolia, and Elasticsearch to provide fast product and content discovery across complex catalogs.
- Implemented real-time application capabilities using Laravel Reverb, Redis queues, WebSockets, and asynchronous processing.
- Worked with cross-functional teams to troubleshoot application issues, validate functionality, improve reliability, and support high-quality releases.
- Designed systems capable of maintaining responsive experiences across demanding and bandwidth-constrained environments.
- Contributed to the delivery of scalable solutions connecting multiple services and business systems.

FULL-STACK ENGINEER & LEAD PLATFORM ARCHITECT | JUICEPRO

2022 – 2024

- Led the architecture and end-to-end development of a multi-module platform combining social networking, marketplace, and communication capabilities.
- Designed and developed backend services and integration layers supporting marketplace and real-time communication workflows.
- Built modular Node.js/Express services with Redis caching and Socket.IO for real-time interactions.
- Designed reliable media upload and storage processes using chunked uploads, AWS S3, and asynchronous background processing.
- Improved platform performance and responsiveness in low-bandwidth environments through optimized assets, data delivery, and client-side caching.
- Worked across frontend, backend, APIs, databases, and infrastructure to resolve complex technical and performance challenges.
- Supported the evolution of the platform architecture as business requirements and functionality expanded.

TECHNICAL SKILLS

Languages & Databases

Expert: JavaScript, HTML5, CSS3, SQL

Advanced: TypeScript, PHP, React, React Native, Node.js, PostgreSQL, MySQL

Frontend

Next.js • React 19 • Vite • Alokai / Vue Storefront • Tailwind CSS • Progressive Web Apps • Service Workers

Backend & APIs

Node.js • Express • Laravel • REST APIs • GraphQL • Backend-for-Frontend (BFF) • API Integration • WebSockets • Event-Driven Applications

Ecommerce

SAP Commerce Cloud / Hybris • SAP OCC REST APIs • SmartEdit • Product Catalogs • Cart & Checkout • Dynamic Pricing • Marketplace Architecture • Transactional Workflows

Quality Engineering

Functional Testing • Integration Testing • Regression Testing • API Testing • Database Testing • SQL Validation • Security Testing • Authorization Testing • Transaction Testing • Concurrency Testing • Data Integrity Testing • End-to-End Testing • Automated Regression Testing

Database & Security

PostgreSQL • PostGIS • MySQL • Database Architecture • Data Integrity • Role-Based Access Control • Authentication • Authorization • Auditability • Migration Testing • Database Replay Validation

DevOps & Engineering Tools

Git • GitHub • Docker • CI/CD • Redis • AWS S3 • Sentry • Linux/WSL • AI-Assisted Development

Search & Performance

Meilisearch • Algolia • Elasticsearch • Redis Caching • Core Web Vitals • LCP • INP • CLS • Performance Engineering

Architecture & Leadership

Full-Stack Architecture • Platform Architecture • Solution Architecture • API Architecture • Microservices • MACH • Cloud Integration • Technical Consulting • Agile/Sprint Facilitation • Client Advisory • C-Level Communication

SELECTED QUALITY ENGINEERING EXPERIENCE

Secure Transaction & Workflow Testing

Experience designing and validating tests for complex transactional workflows where correctness, authorization, data integrity, and financial consistency are critical.

Database Security & Integrity

Hands-on experience testing PostgreSQL database ownership, permissions, authenticated execution contexts, migration integrity, and security boundaries.

Concurrency Testing

Experience investigating race conditions and validating database behavior when multiple operations compete

for the same business resources.

Regression & Security Testing

Experience building repeatable regression and security checks to ensure that new functionality does not weaken existing authorization, data protection, or business rules.

API & Business Workflow Validation

Experience validating backend APIs and end-to-end business workflows across ecommerce, marketplace, property, transaction, and financial systems.

EDUCATION & TRAINING

MASTER'S DEGREE — INTERNATIONAL TRADE POLICY & TRADE LAW

Lund University, Sweden | 2016 – 2018

SELF-TAUGHT SOFTWARE ENGINEERING

Online Studies | Buea, Cameroon | 2019 – 2022

Continuous professional development through practical software engineering, technical research, AI-assisted development, and real-world commercial projects.

POSTGRADUATE CERTIFICATE — INTERNATIONAL ECONOMICS & DEVELOPMENT

TRAPCA Institute, Arusha, Tanzania | 2013 – 2014

HIGHER NATIONAL DIPLOMA — DEVELOPMENT STUDIES

Project Planning & Management

Pan African Institute for Development, Buea | 2017 – 2018

BACHELOR OF SCIENCE — SOCIOLOGY & ANTHROPOLOGY

University of Buea | 2009 – 2012

PROFESSIONAL LANGUAGE PROFICIENCY

English — Native / Fluent

Near-native written and verbal proficiency, with demonstrated experience in technical communication, client advisory, presentations, and C-level stakeholder engagement.

PROFESSIONAL PROFILE

Senior technology professional with a business-oriented approach to software engineering.

Combines architecture, full-stack development, ecommerce experience, quality engineering, and problem-solving to help organizations build reliable digital products and improve complex technology systems.

Particularly experienced in environments where **technology, business processes, customer experience, security, and transactional reliability intersect.**