

Jeremiah Idakabor

SENIOR FULL-STACK SOFTWARE ENGINEER | DATA & AI CONSULTANT

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Versatile and results-driven Software Engineer and Data Analyst with over a decade of progressive experience bridging full-stack application development with advanced Artificial Intelligence and Machine Learning solutions. Proven track record of architecting scalable enterprise systems from the ground up, seamlessly integrating robust backend infrastructures with highly intuitive, cross-platform mobile (Flutter) and web (React) interfaces.

Deep technical expertise in deploying high-precision AI models, computer vision algorithms, and complex data pipelines for high-stakes environments, including stealth startup surveillance and international healthcare analytics. Adept at navigating complete software development life cycles (SDLC), translating ambiguous business requirements into maintainable, high-performance architectures, and extracting actionable, data-driven insights to optimize organizational efficiency. Highly capable of thriving in remote, cross-functional, and fast-paced international environments

KEY ACHIEVEMENTS

Data Efficiency Boost

Increased process efficiency by 20% using Python and advanced data analytics techniques.

Streamlined Reporting

Reduced reporting time by 60% through optimizing data workflows with advanced SQL.

Vision System Enhancement

Enhanced detection accuracy by 30% with advanced computer vision algorithm developments.

High-Speed Deployment

Delivered on-demand systems processing 1,000+ transactions per second with zero downtime.

PROFESSIONAL EXPERIENCE

AI & Computer Vision Consultant

Confidential Stealth Startup — Ukraine (Remote)

Focus: Autonomous Surveillance, Target Acquisition, and High-Performance Edge Computing

- Architected and optimized end-to-end AI-driven analytical pipelines designed for automated object detection, tracking, and classification within highly complex and dynamic environments
- Implemented advanced signal processing and computer vision techniques using Python frameworks to significantly enhance surveillance accuracy and real-time target acquisition performance under resource constraints
- Engineered data ingestion systems capable of processing high-volume, high-velocity sensor data streams, directly improving the overarching system's reliability, latency, and operational effectiveness
- Collaborated securely within an international, cross-functional team under strict Non-Disclosure Agreements, adhering to stringent security protocols and delivering scalable AI models requiring high-precision computational efficiency
- Conducted rigorous testing and validation of machine learning models against edge-case datasets to minimize false positives and maximize confidence thresholds in mission-critical scenarios

Data Analytics Consultant

02/2023 – 2024

Atlas Medic Canada — Canada (Remote)

Focus: Business Intelligence, Predictive Modeling, and Process Optimization

- Leveraged Python and advanced statistical techniques to analyze complex operational datasets, uncovering hidden trends and delivering actionable business insights that drove a measurable increase in process efficiency
- Designed, built, and maintained robust ETL (Extract, Transform, Load) data pipelines using SQL and Python, streamlining the collection, cleaning, and sanitization of large-scale healthcare data
- Trained, validated, and fine-tuned predictive machine learning models to forecast key business outcomes, enabling leadership to make proactive, data-informed strategic decisions
- Spearheaded the translation of complex analytical findings into comprehensive, easy-to-understand visual reporting dashboards for non-technical remote stakeholders and executive leadership
- Optimized legacy database queries and restructured data warehousing models to reduce reporting generation time and improve overall data accessibility across the organization

PROFESSIONAL EXPERIENCE

Founder & Principal Software Engineer

02/2014 – Present

ExcellonIT — Asaba, Nigeria

Focus: Founded and grew a software engineering consultancy delivering enterprise backend systems, cross-platform mobile applications, and cloud deployment solutions for clients across multiple industries.

- Founded ExcellonIT in 2014; own full technical and business direction — architecture standards, delivery practices, and engineering decisions across every client engagement.
- Built the company's backend architecture practice on Laravel/PHP 8+, delivering secure, high-availability enterprise systems per client.
- Standardized RESTful API design across projects, connecting backend microservices, web portals, and mobile clients.
- Established JWT authentication, session management, and role-based access control as baseline security practices across client systems.
- Directed database architecture — PostgreSQL/MySQL schema design, query optimization, and indexing for large-scale concurrent transactions.
- Introduced Redis caching and async job queuing as standard practices, decoupling heavy processes (email, report generation) for low-latency UX.
- Built the mobile engineering practice, developing native-performance iOS/Android apps in Flutter and Dart.
- Built responsive web applications in React.js/Redux with consistent UX across devices and browsers.
- Directed client-side architecture — state management, secure API integration, offline persistence.
- Led the shift to Docker/Docker Compose containerization, eliminating environment-parity issues across Dev, Staging, and Production.
- Architected CI/CD deployment across Google Cloud Run, Railway, and VPS environments — zero-downtime updates, automated rollbacks.
- Built a driver-based PDF engine (MPDF/Browsershot) for financial invoices and dynamic reports, now used across multiple client projects.
- Directed third-party integrations — Stripe, Google Maps, SMS/email providers — extending core application functionality.
- Served as the company's rescue operator for critical production failures — diagnosing server bottlenecks, memory leaks, and database locks to restore continuity.

EDUCATION

Bachelor of Science (B.S.) in Electronic Engineering

Federal University of Technology, Owerri (FUTO), Nigeria

ADVANCED TECHNICAL PROFICIENCY

- Mobile & Web Frontend: Flutter (iOS/Android, Provider/Bloc Architecture) · React.js · Redux · JavaScript (ES6+) · HTML5 · CSS3 · Responsive UI/UX Design
- Backend & API Design: Laravel (PHP 8+) · Node.js · Express · RESTful API Architecture · Authentication (JWT, OAuth2, Role-Based Access Control) · Microservices

ADVANCED TECHNICAL PROFICIENCY

- Data Analytics & AI: Python (Pandas, NumPy, Scikit-learn, TensorFlow/PyTorch concepts) · Computer Vision (OpenCV) · Predictive Analytics · Exploratory Data Analysis (EDA) · Statistical Modeling · ETL Pipeline Construction
- Databases & Caching: PostgreSQL · MySQL · Redis (Performance Tuning, Query Optimization, Background Jobs, Queue Management)
- Cloud, DevOps & Infra: Docker · Docker Compose · Google Cloud Run · Virtual Private Servers (VPS) · Linux Administration · CI/CD Workflows · Nginx/Apache
- Tools & Practices: Git · GitHub (Branching strategies, PR reviews) · Agile/Scrum Methodologies · Technical Documentation · Enterprise PDF/Report Generation (MPDF, Browsershot)

FEATURED PROJECTS PORTFOLIO

Atlas Medic Canada — Healthcare BI Dashboards

Problem: Atlas Medic needed to transform raw healthcare datasets into operational intelligence — forecasting utilization, identifying efficiency opportunities, and presenting actionable insights to non-technical stakeholders without requiring them to learn analytics tools.

Solution: Designed and built production-grade BI dashboards using Python, SQL, and ECharts. Performed exploratory data analysis on patient-flow, resource-utilization, and outcome datasets. Built automated reporting pipelines that ingested multiple data sources, applied statistical transformations, and generated visualization-ready exports on a schedule.

Outcome: Reduced manual analysis time by 60% through automated reporting pipelines. Delivered forecasting models and dashboards that directly informed resource allocation decisions, presented to senior stakeholders with clear data storytelling that translated statistical findings into operational recommendations.

Stack: Python, SQL, ECharts, Pandas, BI, Healthcare, Statistical Analysis

Project Varo — On-Demand Taxi and Delivery Management Platform

Problem: The client needed a secure, cross-platform financial management tool capable of handling real-time transaction processing, complex user hierarchies, and massive enterprise PDF document generation without degrading performance.

Solution: Architected a fully decoupled system. Built a highly secure Laravel REST API backed by PostgreSQL with Redis message queues to offload heavy enterprise PDF invoice generation using a driver-based architecture. Developed the user-facing mobile application from scratch in Flutter with strict biometric authentication and real-time dashboard analytics. Containerized the entire ecosystem using Docker with multi-stage production builds.

Outcome: Delivered a production-ready, highly scalable platform optimized for Google Cloud Run, enabling the client to process thousands of transactions and dynamic financial reports with sub-second API response times. Zero-downtime deployments via CI/CD.

Stack: Laravel, Flutter, PostgreSQL, Redis, Docker, Cloud Run, Dart

Confidential Stealth Startup — AI & Computer Vision Pipeline

Problem: The startup required a real-time computer vision system capable of object detection on edge devices with strict latency constraints — inference had to complete on-device, not in the cloud, while maintaining accuracy comparable to server-grade models.

Solution: Designed and implemented an end-to-end ML pipeline from data collection through model deployment. Built custom object detection models optimized for edge inference (model quantization, pruning, architecture selection for low-power devices). Developed the full data preprocessing, training, evaluation, and export pipeline. Integrated the model runtime into the production application with telemetry for accuracy monitoring in the field.

Outcome: Achieved real-time inference performance on edge devices with latency well under the required threshold. Delivered a reproducible ML pipeline that could be retrained on new data with minimal engineering intervention. The system processed live video feeds with detection accuracy matching the client's accuracy targets.

Stack: Python, Computer Vision, PyTorch/TensorFlow, Edge AI, Model Optimization, Docker

Enterprise Data Analytics Portfolio — 13 Case Studies

Problem: Traditional analytics portfolios rely on notebooks and GitHub repositories that showcase code but fail to demonstrate production engineering or consulting-grade data storytelling.

Solution: Built a production-grade **Next.js** analytics portfolio featuring 13 interactive case studies across 9 domains. Developed a reusable component library with **ECharts**, **Plotly**, full-text search, downloadable reports, and automated data validation using **Zod** and **CI**. The portfolio is publicly available at excellonit.net.

Outcome: Delivered a scalable portfolio that demonstrates full-stack engineering, automated data pipelines, and consulting-quality analytics while achieving strong Lighthouse performance and accessibility scores.

Stack: Tags: Next.js, TypeScript, ECharts, Plotly, TailwindCSS, Framer Motion, Zod, CI/CD

Malaria Prevalence in Nigeria — Geospatial Health Analytics

Problem: Malaria intervention planning relied on fragmented datasets, making it difficult for decision-makers to identify high-burden states and allocate resources effectively.

Solution: Built a reusable **Disease Density Explorer** that integrates malaria prevalence rasters, WHO, and NMEP data. Automated geospatial processing in **R** (**terra**, **sf**, **malariaAtlas**) and developed an interactive **MapLibre GL** dashboard with time-series maps, drill-down analysis, and population-weighted burden metrics.

Outcome: Delivered a fully reproducible 20-year analytics pipeline covering all 37 Nigerian administrative units, uncovering actionable intervention insights and creating a framework reusable across diseases and countries with minimal configuration.

Stack: R, Geospatial Analysis, MapLibre GL, Public Health, malariaAtlas, Data Pipeline

FEATURED PROJECTS PORTFOLIO

Enterprise PDF & Reporting Engine

Problem: Enterprise Laravel applications require scalable, branded PDF generation, but synchronous rendering slows API responses and creates inconsistent output across environments.

Solution: Built a reusable **Laravel PDF & Reporting Engine** with a driver-based architecture supporting **mPDF**, **Browsershot**, and **AWS S3**. Implemented Redis-backed asynchronous job queues, diagnostic tooling (pdf:doctor), and packaged the solution as an installable Composer package with comprehensive documentation.

Outcome: Reduced PDF generation from blocking 5–30 second API requests to asynchronous, sub-second API responses, while delivering a reusable package that simplifies deployment and debugging across environments.

Stack: PHP, Laravel, MPDF, Puppeteer/Browsershot, Redis, AWS S3, Composer

ENGINEERING PHILOSOPHY & METHODOLOGY

Engineering Philosophy & Methodology

Committed to the principles of Clean Code, Test-Driven Development (TDD), and modular architecture. I approach software engineering with a data-first mindset, ensuring that applications are not only scalable and secure but also instrumented to capture valuable analytics. By leveraging automated CI/CD pipelines, containerization (Docker), and agile frameworks, I consistently reduce technical debt, accelerate deployment cycles, and ensure high availability across cloud environments

FREELANCE CONSULTING & SPECIALIZED SERVICES

Production Rescue

Inherited codebases that don't ship, performance-degraded APIs, or systems no one on the existing team understands well enough to fix. I triage the critical path, stabilize the deployment pipeline, and hand back a working system with documentation — often in 2-4 weeks.

Architecture Audits

A structured review of your stack, deployment topology, database schema, and API design — delivered as a written report with prioritized recommendations. Covers security surface area, scaling bottlenecks, observability gaps, and cost optimization on cloud infrastructure.

Cloud Migration

Moving on-prem or poorly architected cloud deployments to Docker + Cloud Run, AWS ECS, or Kubernetes with CI/CD pipelines and zero-downtime cutover.

Feature Delivery

Need a specific feature built — a Flutter mobile app, a Laravel API module, a computer vision pipeline, a BI dashboard? I integrate into your existing team and deliver the feature against your sprint cadence, with code review and tests.

Data Analytics Consulting

End-to-end analytics: data pipeline design, cleaning/validation, exploratory analysis, forecasting, ML models, and interactive dashboards. Deliverables include a written case study with methodology, sourced insights, and a presentation-ready executive summary.

Technical Seminars & Team Training

Half-day to full-day sessions on Production Laravel patterns, Flutter state management at scale, Docker for development teams, CI/CD pipeline design, Data analytics for product teams, and AI/Computer Vision for engineers. Tailored to your team's stack, delivered on-site or remote.