

Onyeka Nwokike

Software Engineer (AI/Data) — Agricultural & Bioresources Engineer

Enugu, Nigeria • +2349069071922 • nwokikeonyeka@gmail.com • [Portfolio](#) • [GitHub](#) • [LinkedIn](#) • [Hugging Face](#)

Professional Summary

Agricultural and Bioresources Engineer and Software Engineer specializing in Python, Django, Flet, AI/ML, data analysis, and SEO, with experience building web and mobile applications, AI agents, APIs, and data tools, as well as research-driven digital solutions for clients in Nigeria and internationally.

Technical & Digital Experience

Featured Projects

- [Igbo Archives](#): Cultural preservation PWA built with Django 6, HTMX, and SQLite WAL. Multi-format archives, community insights, an AI assistant, a public REST API, and an MCP server. Reaches 5,000+ monthly organic users.
- [Igbo Archives Agent](#): Multimodal agent pipeline on Google ADK and Gemma 4. Ingests historical metadata from Hugging Face, runs vision and audio analysis, and publishes validated entries to the Igbo Archives via an MCP client.
- [SpanInsight](#): Privacy-first data analysis mobile app (Flet) for collecting forms, analyzing data, and building dashboards. Local sandboxed Python runtime. Published on Google Play.
- [Akili](#): After-school learning mobile app (Flet) with AI-powered courses, quizzes, mock exams, and a tutor with voice and image input. Published on Google Play.
- [Sherlock](#): Private OSINT mobile app (Flet) that scans 430+ social networks by username. Popular platforms complete in about 1.5 seconds; exports to CSV and Excel. Published on Google Play.
- [ADKbot](#): Multi-model assistant framework on Google ADK and LiteLLM. Connects to 12+ chat platforms (Telegram, Discord, WhatsApp, Slack, and more) and supports 50+ LLM providers through one interface. Published on PyPI.
- [Flet MCP Server](#): Model Context Protocol server, published on PyPI, that serves official Flet documentation, controls, and ecosystem packages to AI agents. GitHub Tree sync, diskcache, and fuzzy search.
- [Kiri Code](#): Serverless, browser-based coding IDE built with WebContainers, Pyodide, and isomorphic-git. Runs Node, Python, PHP, and Ruby in the browser with no backend. Bring your own LLM key.

AI/ML Research & Model Training

- [Naija-Moonshine-v1-Base](#): Built and patched a 0.1B parameter Moonshine speech model from scratch with a custom Naija tokenizer for low-resource ASR, incorporating digraphs and Pidgin-specific linguistics. Research prototype; insights applied to future edge AI systems.
- [Igbo Cultural Heritage Datasets](#): Published 8 structured datasets on Hugging Face (Pitt Rivers Igbo, British Museum Igbo, MAA Cambridge, G.I. Jones, Re-entanglements, Ukpuru) for Digital Humanities research, averaging thousands of downloads per month with peaks of 5,000+ in high months. Built with async scraping pipelines and IIF max-resolution extraction.
- [Igbo Bilingual Chat](#): Fine-tuned Phi-3-mini into a bilingual Igbo/English conversational model on 700,000 examples across 44,500 training steps (20 hours). Published GGUF and merged weights on Hugging Face.
- [Museum Scrapers Python](#): Async scraping toolkit for Digital Humanities research, covering 5 institutions (Pitt Rivers, British Museum, MAA Cambridge, G.I. Jones, Ukpuru). Playwright, IIF max-resolution extraction, and structured JSONL output.

Professional Experience

National Agricultural Seeds Council, Sheda, Kwali, FCT

NYSC Intern, Seed Coordination Department

January 2025 – December 2025

- Streamlined seed production processes, reducing distribution delays by 15% while enforcing Nigeria's quality standards.
- Operated machinery to process farm products (e.g., beans, cowpeas), ensuring high-quality packaged outputs.
- Collaborated on nationwide initiatives to promote sustainable farming practices and seed quality standards.

GreenEarth Environmental Consult, Enugu

SIWES Intern, Environmental Engineering

January 2022 – June 2022

- Conducted field sampling for 5+ Environmental Impact Assessments (EIAs), securing regulatory approval for sustainable projects.
- Developed 3 Environmental Management Plans (EMPs), achieving 100% compliance with environmental regulations.
- Presented risk mitigation strategies to stakeholders, gaining approval for 2 major infrastructure projects.

Self-Employed – Software Developer & SEO Specialist

March 2020 – Present

- Delivered AI-powered platforms and data tools for clients, improving outcomes by 30% through optimized code.
- Grew client project visibility by 50–200% using advanced SEO and technical optimizations.

Kiri Research Labs

Founder & Lead Developer

March 2024 – Present

- Founded and lead technical development of the Igbo Archives, a cultural preservation platform reaching 5,000+ monthly organic users through SEO.
- Authored 20+ articles on Igbo culture, driving 40% audience engagement growth via social shares and comments.
- Built the Django backend, REST API, and MCP server that let AI agents read and contribute to the archive.

Skills

Tech Stack:

- Primary Language: Python
- Mobile & Agents: Flet, Google ADK, MCP, Playwright
- Backend: Django, REST APIs
- AI/ML: Hugging Face, fine-tuning (LoRA/PEFT), Scikit-learn, Pandas, NumPy
- Web: HTML5, CSS3, JavaScript, HTMX, Tailwind
- Database: PostgreSQL, MySQL, SQLite (WAL)
- Deployment: Linux, Google Cloud, Azure, Oracle Cloud, Render, Streamlit

Core Engineering & Agricultural:

- Environmental Impact Assessment, Environmental Management Plans, Sustainable Agriculture

Soft Skills:

- Communication, Analytical Thinking, Team Collaboration, Research

Certifications

- AI Software Engineer (Power Learn Project Africa, 2025)
- PCAP: Programming Essentials in Python (Cisco Networking Academy & OpenEDG, July 2019)
- B.Eng Certificate (University of Nigeria, Nsukka)
- ASABE Membership
- FA Equality and Diversity Certificate
- Trade Test I, II, and III (Electrical Installation and Maintenance)

Education

University of Nigeria, Nsukka

B.Eng in Agricultural and Bioresources Engineering

2017 – 2023

- Second Class (CGPA: 3.00/5.00)

Power Learn Project (PLP Africa) Software Engineering Program

2025

- AI for Software Engineering

Federal Science and Technical College, Awka

NABTEB Certificate in Electrical Installation and Maintenance Work

2014 – 2017

- Trade Test I, II, and III