

STEPHEN UKAEGBU

Hardware & Business Systems Engineer · ITAD Specialist

Hertfordshire, UK | Email: info@stephenukaegbu.com

LinkedIn: [linkedin.com/in/stephen-ukaegbu](https://www.linkedin.com/in/stephen-ukaegbu) | GitHub: github.com/newbornspec

Full UK Driving Licence · CSCS Card

PROFESSIONAL PROFILE

Engineer working at the seam between physical hardware and the software that accounts for it. Over 12 years of electronics and IT hardware experience, from board-level repair through to designing and shipping the production systems that track, grade and dispose of that hardware. I built my employer's IT asset disposition platform and the bootable audit tool that feeds it, having first run the process by hand. Comfortable owning a system end to end: data model, API, interface, deployment and the compliance evidence it has to produce.

CORE SKILLS

Hardware & Electronics: Board-level repair · PCB diagnostics · micro-soldering and rework · power-rail tracing and short localisation · component-level fault finding · hardware grading · data recovery

Software Engineering: TypeScript · React · Next.js · Node.js · NestJS · Express · REST API design · PostgreSQL · MongoDB · TypeORM · Python · Bash · Tailwind CSS · Git

ITAD & Business Systems: IT asset disposition · inventory and asset tracking · hardware grading standards · secure data erasure (NIST SP 800-88) · compliance certification · ESG reporting · process automation · requirements and systems analysis

Cloud & DevOps: Vercel · Railway · Docker · CI/CD pipelines · Linux administration · deployment topology

Security: Secure data erasure and verification · authentication and access control · application security review

AI & Automation: AI-assisted development · prompt engineering · AI workflow design · OCR and document extraction

SELECTED PROJECTS

ITAD Inventory & Asset Disposition Platform — NestJS · Next.js · TypeScript · PostgreSQL · TypeORM · PowerSync · Railway · Vercel

- Production warehouse system tracking a device from pallet to invoice and proving its data was destroyed.
- Models three tracking granularities — serialised devices, bulk SKUs and mixed-quantity pallets — under one purchase-lot abstraction.
- Issues Certificates of Data Erasure from verified wipe records; history is append-only.

Bootable Hardware Audit & Secure Erasure Tool — Bash · Linux · SystemRescue · dmidecode · nvme-cli · hdparm · smartctl

- Boots a wiped device from USB, reads its full specification from firmware and sysfs, and uploads a complete hardware record.
- Performs NIST SP 800-88 aligned purges via NVMe format/sanitize and ATA Secure Erase, with method-aware verification.

Walterstone HR & Workforce Platform — React · Express · MongoDB · Better-Auth

- Thirteen-module workforce system: employees, scheduling, absence, documents, payroll inputs and reporting.
- Built as independent modules on a shared authentication and permissions core.

PROFESSIONAL EXPERIENCE

Senior Computer Repair & Systems Technician

A.L.S Trades Ltd — Hertford | July 2024 – Present

- Designed and built the company's IT asset disposition platform end to end — receiving, hardware audit, grading, refurbishment, sales and compliance certification.

- Wrote a bootable Linux audit and secure-erasure tool that profiles a device from firmware and issues NIST SP 800-88 aligned erasure certificates.
- Replaced a spreadsheet-and-memory process with one auditable, append-only record per device.
- Set the grading standard used across intake, informed by component-level repair capability.

IT Technician / Hardware Repair Specialist

Skylight Computech | January 2015 – October 2023

- Carried out computer, laptop and mobile device repair and refurbishment for individual and business clients.
- Installed, configured and upgraded hardware and operating systems; diagnosed faults to component level.
- Supported business peripherals including printers and POS hardware.

Electronics & Installation Technician — earlier roles

Ashadam Solar Company · European Soaps & Detergent Ltd · Gefoco Nig. Ltd

- Installation and maintenance engineering, industrial electrical maintenance and an electrician apprenticeship.
- Built the foundation in electronics, circuitry, diagnostics and safe working practice.

EDUCATION

- M.Sc. International Business Management — University of Sunderland (London)
- M.Sc. Physics — University of Ibadan
- B.Sc. Physics — University of Ibadan

CERTIFICATIONS

- CompTIA A+
- CompTIA Network+
- CSCS Card
- Health, Safety & Environment (HSE)

References available on request.