Chukwuemeka John Chukwunonso

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PROFESSIONAL SUMMARY

Software engineer turned full-time security researcher, with experience in web and API security, secure code review and static analysis, networking fundamentals, and binary exploitation, built through structured self-study, CTF-style labs, and bug bounty participation. Has tutored and mentored people entering the security field, and designs structured, self-paced learning curricula — a skill that transfers directly to building and delivering course material.

EXPERIENCE

Independent Security Research and Tutoring — Self-directed *September 2025–Present*

- Full-time independent security research and practice: web application and API security, secure code review and static analysis, networking, reverse engineering and binary exploitation fundamentals, and cryptography.
- Participated in bug bounty programs, testing web and API targets for access control flaws (BAC/IDOR) using Burp Suite and recon tooling (subfinder, dnsx, httpx).
- Practiced exploitation of common web vulnerability classes (e.g. SQL injection, access control bugs) on intentionally vulnerable applications (OWASP Juice Shop, crAPI).
- Building static-analysis skills which involves tracing untrusted-input dataflow to dangerous sinks and writing targeted detection rules to surface vulnerability patterns at scale.
- Developing binary exploitation fundamentals (process memory, control flow, debugging) and foundational applied-cryptography knowledge through structured, lab-based practice.
- Used AI coding/research assistants deliberately and methodically to structure self-study plans, review code patterns, and document findings as part of a disciplined, responsible-AI-use workflow for security work.
- Developed a personal learning methodology : a repeatable deep-dive, drill, and synthesis cycle for taking a learner from beginner to advanced practitioner in any technical skill; and I have applied it to own study extensively and in use when mentoring others.
- Offered free tutoring and career guidance to people trying to get into cybersecurity, including one-on-one mentoring and informal curriculum/study-plan design.
- Currently own and run a Discord community where free virtual training sessions on various cybersecurity skills have been delivered to members.
- Designed and delivered hands-on labs covering systems and web security foundations (Linux, networking, Burp Suite-based web application testing), explained to learners at varying skill levels.
- Active member of the security research community which helps me stay up to date on emerging research and technical knowledge through industry blogs, write-ups, etc in order to keep my skills current.

Front Desk Administrator / Technical Support (Provisional) — Certari Asset Management *June 2025–September 2025*

- Handled front desk administration and provided technical support to office staff during a three-month provisional role.

Lead Backend Engineer (Contractor) — EaseBnB (property tech startup) *December 2024–March 2025*

- Designed and built the backend (Node.js, Express, MongoDB) supporting property transactions for 500+ daily active users, with average response times under 200ms.
- Implemented OAuth 2.0 with JWT authentication after comparing three alternative approaches.
- Implemented input validation, field-level encryption, and role-based access control.
- Added Redis caching after profiling identified database bottlenecks, reducing average API response times by 40%.
- Integrated Paystack and Flutterwave payment gateways.
- Wrote API documentation and automated tests (Jest, Supertest, 65% coverage) for frontend and backend collaboration, reducing production bugs by 40%.

Software Engineer — CruiseSocial, Inc. (campus service platform), Enugu, Nigeria *July 2023–December 2024*

- Built core microservices and RESTful APIs (Node.js, Express) for a platform serving 1,000+ users across 3 universities, shipping in two-week sprints.
- Improved schema design and query performance, cutting server response times from 1.2s to 650ms at 100K+ monthly requests; added Redis caching for peak traffic.
- Built real-time messaging and notifications with Socket.io, supporting 500+ concurrent connections.
- Designed a multi-tenant security architecture to meet different campuses' data protection requirements.
- Wrote test suites with 60% coverage, reducing critical production bugs by 50%.
- Worked with product managers to iterate on requirements and features.

SKILLS

Security: web application security (OWASP vulnerability classes, access control, injection), API security testing, secure coding and code review, static analysis fundamentals, authentication and authorization (OAuth 2.0, JWT, RBAC), reconnaissance, networking fundamentals, binary exploitation fundamentals (pwn.college).

Tools: Burp Suite (Autorize), subfinder, dnsx, httpx, CodeQL, OWASP Juice Shop, crAPI, Linux, gdb, Wireshark, ZAP Proxy.

Development: JavaScript (Node.js), Python, Bash, C++; MongoDB, PostgreSQL, Redis; API design, microservices; unit and integration testing.

Teaching and communication: tutoring and mentoring, code reviews, technical documentation and writing, structured self-study and curriculum design.

EDUCATION AND TRAINING

- BSc Computer Science and Statistics, University of Nigeria, Nsukka — 2022
- ALX Holberton School — 2023
- Ropers Academy — networking course
- Self-study: The Art of Software Security Assessment, Bug Bounty Bootcamp, OWASP SDLC, CodeQL Zero to Hero, pwn.college, CryptoHack, and many more.