Ali Eric Chinonso

Phone：13037112169 | Email：Ericchinonso1@outlook.com

OBJECTIVES : Llinkedin: linkedin.com/in/ericchinonso --- GitHub: github.com/EmpireNetwork123

RESEARCH INTERESTS

Computer & Network Security
Malware Analysis
Reverse Engineering
Cyber Forensics
Automated Vulnerability Discovery
Privacy-Preserving Systems

EDUCATIONAL BACKGROUND

Huazhong University of Science and Technology

2023-09 to 2025-09

School of Cyberscience and Engineering | Cybersecurity | Master GPA:4.0 (Rank:前1%)

Thesis Ransomware Detection via Hybrid CNN-BiLSTM Model & Behavioral Feature Analysis

Advisor: Professor Songfeng Lu

Relevant Coursework: Advanced Network Security, Sytems Security,System Vulnerability Analysis, Machine Learning

Michael Okpara University of Agriculture, Umudike, Nigeria

2013-09 to 2019-08

School of Engineering and Engineering Technology | Computer Engineering | Bachelor GPA:3.92

Thesis Design and Implementation of a Simplified Data Encryption Standard (SDES) With Cipher Feedback (CFB) Mode

Advisor: Dr. Ede Cyril

Demonstrated low-level understanding of cryptographic primitives and secure communication protocols.

RESEARCH EXPERIENCE & PROJECTS

Wuhan JinyinHu Lab_HUST

Msc Researcher 2023-09 to 2025-06

Wuhan JinyinHu Laboratory_HUST 2023-09 - 2025-06

Msc Researcher

- Built a scalable system for dynamic malware analysis, constructing a novel dataset of 30,173 ransomware samples by instrumenting and tracing API calls, DLL interactions, and mutex operations, mapping them to MITRE ATT&CK TTPs.
- Engineered a Python-based framework for decentralized analysis, integrating feature extraction, CNN-BiLSTM model training, and federated learning orchestration with Flower, achieving 99.9% detection accuracy.
- Co-authored a security architecture integrating a Zero Trust SDP with a machine learning-enabled Snort IDS/IPS, focusing on real-time detection and mitigation of cross-platform backdoor attacks.

Undergraduate Thesis Project_MOUAU 2016-09 - 2018-06

B.Eng : Computer Engineering

- Implemented a cryptographic system from scratch in C/C++, building a Simplified DES algorithm with Cipher Feedback (CFB) mode to enable secure, encrypted communication channels between networked devices.

- **IPNX BoM Automation App_IPNX Nigeria Ltd.** 2019 -11 - 2021-10
  Developed a full-stack application (React.js, PHP, Python/Tkinter) to automate business processes, demonstrating end-to-end software development and deployment skills.

TEACHING EXPERIENCE

Huazhong University of Science and Technology _HUST 2024-07 – 2025-06

Graduate Teaching Assistant

- Supervised and mentored 37 international first-year students in Computer Science laboratory courses, ensuring a smooth transition to university-level research.
- Prepared comprehensive lab manuals and graded weekly assessments, improving students average lab performance by 15% over the semester.
- Supported the development of hands-on experiments linking theoretical knowledge to real-world applications.

Royal Academy Schools 2013-11 - 2015-04

STEM Instructor -Summer Program

- Taught Mathematics and Introductory Computer Science to over 200 SSCE students, resulting in a 42% improvement in external WAEC performance.
- Redesigned and updated the Introduction to Computer Science curriculum, enhancing clarity and self-study effectiveness.
- Fostered early student interest in computational thinking through problem-based learning and real-world examples, cultivating future STEM talent.

PUBLICATIONS

Chinonso E.A., Lu, S., Ruambo, F., & Tchamini, F. (2025). RS-FEDRAD: Robust and Scalable Federated Ransomware Detection Using TTP-Enhanced Dataset. International Journal of Information Systems Engineering and Management. https://doi.org/10.52783/jisem.v10i43s.8490

Chinonso E.A., Lu, S., Ruambo, F., & Tchamini, F. (2025). Federated Learning in Ransomware Detection: A Systematic Literature Review. International Journal of Science, Engineering and Technology. (Accepted)

Ruambo, F.A., Masanga, E.E., **Chinonso E.A**., & Nicholaus, M.R. (2024). Enhanced Backdoor Resilience in Cross-Platform Systems Using Zero Trust SDP-Enabled SnortML IDS/IPS. In Cybersecurity and Secure Information Systems (pp. 459–478). Taylor & Francis. https://doi.org/10.1201/9781003614197-29

Ahmed, N., Roomi, A., **Chinonso E.A**., Fiaz, S.J., & Yasin, A. (2024). International Cyber Law and National Security: Balancing Privacy, Security, and Sovereignty. Policy Research Journal. https://doi.org/10.5281/zenodo.15063015

AWARDS & CERTIFICATIONS

HUST – Outstanding International Student Award | 2025 Awarded in2025-07

International Students Office

Advanced Cybersecurity Bootcamp, Cyber Talents Academy | 2024 Awarded in2024-11

Cyber Talents

Chinese Government Scholarship (Fully Funded Master's) | 2023 Awarded in2023-09

CSC Scholarship

TECHNICAL SKILLS

Programming & Systems: C, C++, Python, PHP, JavaScript (React)

Security Tools & Platforms: IDA Pro/Ghidra (Familiar), Wireshark, Snort, Suricata, Docker, Git

Security Techniques: Binary Analysis, Threat Modeling, Zero Trust Architecture, Network Traffic Analysis

ML/Data: PyTorch, Scikit-learn, CNN/LSTM/BiLSTM, Data Preprocessing