

Obinna Johnbosco Awoke

Paris, France | +33 (0)686649803 | obinna.awoke@gmail.com

LinkedIn: <https://www.linkedin.com/in/obinnakev> | ORCID: <https://orcid.org/0009-0004-6632-2384>

RESEARCH PROFILE

Researcher in AI-driven cybersecurity and intelligent network systems, with experience in machine learning, deep learning, explainable AI, and intrusion detection. Interested in scalable AI systems, adaptive network defense, and trustworthy machine learning for real-world applications.

RESEARCH INTERESTS

- AI-Driven Cybersecurity and Intrusion Detection
- Scalable and Intelligent Network Systems
- Explainable and Trustworthy AI
- Machine Learning for Network Analytics

EDUCATION

Master of Engineering in Digital Security and Networks (CGPA: 15.44/20)

Institut Supérieur d'Électronique de Paris (ISEP), France | Expected September 2026

Master of Science in Computer Science (Distinction, GPA: 3.77/4.0)

African University of Science and Technology (AUST), Nigeria | November 2024

Thesis: Fusion of Deep Architectures in Intent-Driven Networks for Intrusion Detection

Bachelor of Science in Computer Science (First Class Honours, GPA: 4.59/5.0)

Ebonyi State University, Nigeria | October 2017

RESEARCH EXPERIENCE

Research Project – XAI-AD: Explainable Anomaly Detection in Healthcare Systems

LISITE Lab, ISEP Paris — Supervisor: Dr. Yousra Chabchoub | September 2025 – Present

- Developed deep learning models for anomaly detection and early cardiovascular disease prediction using heterogeneous clinical datasets.
- Applied SHAP, LIME, Anchors, and Integrated Gradients to improve interpretability and transparency.
- Integrated LLM-based explanation generation for clinician-oriented reporting.
- Contributes to ongoing research discussions within LISITE on trustworthy AI, interpretable ML, and medical anomaly detection.

Graduate Researcher – MSc Thesis | June 2023 – June 2024

African University of Science and Technology (AUST), Abuja, Nigeria

Thesis: Fusion of Deep Architectures in Intent-Driven Networks for Intrusion Detection

Advisor: Dr. Rajesh Prasad

- Researched deep-learning integration into Intent-Based Networking (IBN) for real-time intrusion detection; developed a full ML pipeline (preprocessing, feature engineering, tuning) using CIC-IDS2017.
- Built and evaluated Random Forest, 1D-CNN, Stacked LSTM, and Hybrid CNN-LSTM models with standard detection metrics and the Friedman–Tukey index for balanced/imbalanced datasets.
- Identified 1D-CNN as the most efficient lightweight model for real-time IBN environments.
- Published results in *Digital Defense: Harnessing the Power of AI for Cybersecurity and Digital Forensics* (CRC Press, 2025).

PUBLICATIONS

Book Chapters

- Ajaegbo, N. G., Prasad, R., Abdullahi, H. I., & **Awoke, O.** (2026). A Computational Framework for Inclusive Assessment and Predictive Student Retention Models in Higher Education. In R. Sam, M. Serey, & S. Em (Eds.), Student Enrollment and Retention Strategies to Reduce Dropout in Higher Education (pp. 95-134). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3373-7946-3.ch004>
- **Awoke, O. J.**, Prasad, R., Godcares, N., & Saiyed, N. (2025). Fusion of Deep Architectures in Intent-Driven Networks for Intrusion Detection. In Digital Defense: Harnessing the Power of Artificial Intelligence for Cybersecurity and Digital Forensics (1st ed.). CRC Press. DOI: 10.1201/9781032714813-4

Publications & Conference Papers

- **Awoke, O. J.**, Osunde, A.A., Muhammed, I. M., & Faluyi, S. G. A Multi-tier Explainable AI Architecture for the Prediction of Cardiovascular Diseases. Proceedings of the 9th International Conference on Information and Computer Technologies (ICICT 2026), ACM, Honolulu, USA, March 2026.
- Esther, C. C., Ursula, E., Chukwuemeka, A., & **Awoke, O.** (2025). IOT based smart irrigation system using Node MCU 8266 and soil moisture sensor. International Journal of Engineering Applied Sciences and Technology, 10(3), 5–10. <https://doi.org/10.33564/IJEAST.2025.v10i03.002>

PROFESSIONAL EXPERIENCE

Graduate Assistant (School of Computing)

Miva Open University, Abuja, Nigeria | January 2024 – Present

- Deliver lectures, tutorials, and lab sessions in computing and mathematics.
- Support research and course development in cybersecurity and machine learning.
- Provide academic guidance and supervise undergraduate projects.

Additional Administrative Appointment: Programmer Coordinator, Information Technology

April 2024 – August 2024

- Provided strategic leadership to align departmental activities with the university's mission and goals.
- Managed full- and part-time faculty assignments, ensuring effective course delivery and oversaw key academic functions including grading, live sessions, office hours, course development, assessments, and quality assurance.
- Led the development and continuous improvement of high-quality online courses and programs.
- Cultivated an inclusive and supportive learning environment, fostering student success and professional growth.

Academic Advisor (School of Computing)

Miva Open University, Abuja, Nigeria | September 2023 – December 2023

- Delivered personalised academic advising that improved student pass rates by 32% and achieved a 97.6% satisfaction rating from the Quality Assurance Department.
- Guided 50+ computing students in course selection, degree planning, and career development.
- Monitored academic performance and implemented targeted support strategies to enhance overall student success.

Technical Support Engineer

Pacesetters' Schools, Guzape, FCT - Nigeria | August 2019 – August 2023

- Improved organizational efficiency by 45% through IT system optimization and network reconfiguration.
- Provided technical support to 40+ staff and 280+ students, resolving hardware, software, and network issues.

- Conducted network security assessments and collaborated on the development of the school's education portal.

HONORS & AWARDS

- Best Graduating Student, Computer Science (Class of '24), African University of Science and Technology, Nigeria (2025)
- Professor Charles Ejike Chidume Best Graduating Student Award in Computer Science, African University of Science and Technology, Nigeria (2025)
- Academic Excellence Award, Scripture Union, Nigeria (2017)
- Excellent Leadership Award, Nigeria Association of Computing Students, Ebonyi State University, Nigeria (2016)

SCHOLARSHIPS & FUNDING

- Petroleum Trust Development Fund (PTDF) Overseas Scholarship, Nigeria — \$65,000 (2023)
- University President Scholarship Award, African University of Science and Technology, Nigeria — \$1,000 (2022)
- Ebonyi State Government Undergraduate Scholarship Award, Nigeria (2014–2016)
- Watchman Catholic Charismatic Renewal Movement (WCCRM) Scholarship, Nigeria — \$250 (2013)

PROFESSIONAL MEMBERSHIP

- Professional Member, Association for Computing Machinery (ACM) | 2025 – Present
- Student Member, Société Informatique de France (France Computer Society) | 2025 - Present
- Professional Member, Open Distance and eLearning Association of Nigeria (ODELAN) | 2025 – Present
- Graduate Student Member, Institute of Electrical and Electronics Engineers (IEEE) | 2025 – Present
- Student Member, Information Systems Audit and Control Association (ISACA) | 2023 – Present
- Member, Data Science Africa | 2020 – Present
- AI+ Researcher, Data Science Nigeria | 2020 – Present

LEADERSHIP & ADMINISTRATIVE ROLES

- **Coordinator**, Miva Virtual Innovation Hub | Miva Open University, Abuja | March – August 2024
- **State Coordinator** - Nigeria Association of Computing Students | Ebonyi Sub-Zone | August 2016 – April 2017
- **President** - Nigeria Association of Computing Students | Ebonyi State University | August 2015 – July 2017

COMPETENCIES & SKILLS

- Programming: Python, Java, SQL, LaTeX
- Machine Learning: Scikit-learn, TensorFlow, Pandas, NumPy
- Explainable AI: SHAP, LIME, Anchors, Integrated Gradients
- Cybersecurity Tools: Wireshark, Nmap, Splunk, Burp Suite
- Systems & Networking: Linux, Network Configuration, IDS/IPS

TRAINING AND CERTIFICATIONS

- Foundation Postgraduate Course (Mathematical Foundations of Computer Course) | National Mathematics Centre, Abuja | December 2022
- Google Certified IT Support Professional | Coursera | December 2022
- Advanced SQL For Data Scientist | LinkedIn Learning | June 2019
- Python Essential Training | LinkedIn Learning | May 2019
- Python: Data Analysis | LinkedIn Learning | May 2019