

Abdul-Matin Odoom

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Profile

Aspiring computer security researcher and self-motivated young Ghanaian graduate with 2+ years combined internship and professional experience. Passionate about acquiring higher education in secure, intelligent systems. Constantly engaging in capacity building through complementary collegiate courses and online bootcamps. Reliable and responsible team player and an excellent communicator. Motivated to apply my research and software development skills toward impactful advanced research in computer science.

Education

Kwame Nkrumah University of Science and Technology (KNUST)

Jan 2021 – Aug 2024

BSc in Computer Science

- **GPA:** 3.7/4.0 
- **Relevant Coursework:** Computer Security, Artificial Intelligence, Data Structures and Algorithms

Research Interests

Applied Cryptography, Machine Learning Security, Blockchains Security

Specific Research Interests:

- **Cryptography:** Homomorphic encryption, secure multiparty computation (MPC), and differential privacy.
- **Blockchain-based security:** Zero-knowledge proofs, confidential smart contracts
- **Robustness and privacy in ML models:** Adversarial attacks/defenses, model inversion resistance

Experience

Research and Teaching Assistant, Department of Computer Science – KNUST

Nov 2024 - Present

- Conducted systematic literature reviews to identify research gaps for PhD students.
- Assisted in writing, editing, and peer-reviewing dissertations.
- Taught introductory CS courses and supervised 15 capstone projects.
- Facilitated course preparation, grading, and student feedback.

Software Developer Intern, Metcalfe and Partners – KNUST

Sept 2024 – Oct 2024

- Built an admin panel app for monitoring construction projects monitoring.
- Authored a 45-page strategic analytical report.
- Implemented a Node.js microservice to sync stock levels with suppliers.

Projects

- **XPenSmat: Smart Student Expense Predictive System**

[github.com/repo](#)

Research Project: Intelligent expense predictor achieving 97% improvement in forecast accuracy with privacy-preserving pipeline

- **PaMaChain: A Decentralised, Trustless Password-Management System Using Blockchain**

[github.com/repo](#)

Engineering Project: Blockchain-based, decentralized password manager with confidential credential storage.

Leadership & Volunteering

- **KNUST's Peer support & advocacy**
Vice President of KCM (campus-wide peer-mentorship program), Head organizer of an CodeFEST hackathon
- **Student leadership**
School prefectship and Class representative (High School) and Lab coordinator (Volunteering).
- **Community project**
Departmental research forum moderator, Tree-planting & Recycling campaigns
- **Athletic leadership roles**
Local football-team youth coach and Basketball team captain

Skills & Technologies

- **Programming & Development**
Programming, Automation, Hands-on packet capture analysis, Mobile/Web development, Predictive analysis
- **Research & Academic**
Data analysis, Peer paper review, Technical report writing, Experimental design
- **Tools & Frameworks**
Scikit-Learn, Metasploit, Wireshark, React, SQLite, Git, MATLAB, LaTeX, AWS CloudTrail
- **Languages**
C++ (Advanced), Python (Advanced), Java, Bash & PowerShell
- **Soft Skills**
Communication, Critical thinking, Mentorship, Leadership, Teamwork

Awards

- First Class Honours in Computer Science, KNUST
- KNUST Ketewa Nsua & SRC Bursary Scholarships
- Ghana Scholarship Secretariat Award
- Achievers' Award for Academic Excellence