

PAUL TANDOH ASARE

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Admitted – Master of Science in Cybersecurity (Fall 2026), Villanova University

PROFILE

Cybersecurity professional and incoming M.S. in Cybersecurity student with over six years of experience in secure software development and public-sector IT infrastructure support. Specialized in secure system architecture, authentication systems, network defense, and cybersecurity awareness in emerging economies. Experienced in research, teaching, and community digital literacy leadership. Passionate about strengthening secure digital infrastructure while advancing inclusive technology education.

EDUCATION

University of Education, Winneba — Ghana

Bachelor of Science in Information Technology Education (2018–2022)

Relevant Coursework:

- Research Methods
- Methods of Teaching IT
- Data Communication & Networking
- System Analysis & Design
- Database Management

Final Year Project:

School Management System – Case Study of St. Monica's JHS

Designed and implemented a secure web-based academic management system incorporating:

- Role-based authentication
- Access control policies
- Secure database structuring
- Input validation and system logging

CERTIFICATION

- BSc. Information Technology Education
- Certificate in CCTV Operation
- Certified Phishing Prevention Specialist (CPPS)

RESEARCH EXPERIENCE

Securing Ghana Police Data Communication Systems (Ongoing)

Collaborative research with Amos Frimpong

- Investigating vulnerabilities in public-sector data transmission systems
- Proposing secure communication architecture models
- Exploring encryption, network segmentation, and monitoring frameworks

Anomaly Detection & Secure Authentication Using Machine Learning (Ongoing)

- Exploring SVM, Random Forest, and LSTM models for intrusion detection
- Researching behavioral authentication and fraud detection mechanisms

Independent Cybersecurity Research

- Ethical hacking simulations
- Cloud security configuration testing
- Penetration testing practice environments
- Digital forensics case simulations

PROFESSIONAL EXPERIENCE

CCTV Control Room Technician

The Trust Hospital, Accra (Oct 2024 – Present)

- Configure and maintain DVR/NVR systems
- Monitor surveillance networks ensuring secure data retention
- Support network integrity and incident documentation
- Assist in internal IT infrastructure troubleshooting

IT Infrastructure (National Service)

Parliament House of Ghana (Nov 2022 – Nov 2023)

- Supported LAN/WAN network management
- Assisted in firewall configuration and VPN deployment
- Contributed to cybersecurity awareness and backup management
- Recognized for Outstanding National Service Performance

Freelance Software Developer

PADEV (2018 – 2021)

- Developed secure web and desktop applications
- Implemented authentication systems and input validation
- Designed client management platforms
- Awarded Innovation in Software Design (2021)

TEACHING & ACADEMIC FACILITATION

Research Methods Facilitator – UEW (2022)

- Mentored final-year students in research design, analysis, and academic writing

Teaching Internship – Denkyemouso M/A Basic School (2022)

- Delivered ICT curriculum integrating digital literacy and computing fundamentals

Software Training Facilitator – The Trust Hospital (2025)

- Delivered training on hospital information systems
- Focused on system security, user roles, and data handling

Facilitator – Infotess Community of Practice (2021–2022)

- Taught Operating Systems fundamentals and system installation
- Guided learners in troubleshooting and configuration

COMMUNITY IMPACT & LEADERSHIP

Community ICT Volunteer (2021–2025)

Sekruwa Community ICT Volunteer (2023, 2024, 2025)

Mampong Community ICT Volunteer (2025)

- Organized and led ICT literacy outreach programs
- Delivered foundational coding and digital skills training
- Conducted Safe Internet & Data Privacy workshops
- Provided volunteer teaching support to surrounding schools

Mobile Money Fraud Awareness Workshops (2024–2025)

Conducted anti-fraud education workshops for:

- Mampong-Nkubeta market women
- Mampong-Asaam community
- Non-literate and vulnerable populations

Focus Areas:

- MTN MoMo fraud detection techniques
- Social engineering awareness
- SMS phishing identification
- Secure PIN and transaction practices

Impact:

- Improved financial digital safety awareness
- Reduced vulnerability to mobile financial fraud
- Strengthened community-level cybersecurity literacy

STEM Outreach Collaboration

Partnered with Gentle Souls Foundation to:

- Deliver ICT training to girls in Atwima Boko
- Promote digital inclusion for underserved communities

LEADERSHIP EXPERIENCE

- Team Lead — Find Hostel System Project
- Project Leader — Event Vote System
- Infotess Organizer — UEW (2021–2022)
- Led multi-community cybersecurity awareness initiatives

TECHNICAL PROJECTS

Find Hostel System

Secure student accommodation platform

Technologies: HTML, CSS, PHP, JavaScript, MySQL

- Authentication & encryption integration
- Data validation controls
- Secure database management

Event Vote System

Real-time online voting platform

- Fraud prevention logic
- Result verification mechanism
- Database normalization
- Secure API integration

School Management System

Role-based academic management system

- Secure login architecture
- Access restriction models
- Structured database design

PUBLICATIONS

“Integrating Secure Software Design Principles into Web-Based Educational Systems”
(Manuscript in preparation)

SEMINARS & PROFESSIONAL DEVELOPMENT

- Research Conference — AAMUSTED (2025)
- Software Deployment & Maintenance — Trust Hospital (2024, 2025)
- Cybersecurity Awareness Seminar — Parliament of Ghana (2023)
- ICT in Education Workshop — UEW (2022)

SEMINARS, WORKSHOPS & TRAINING

Software Deployment and Maintenance Training – The Trust Hospital Company (10th and 11th April 2025)

- Delivered internal sessions on secure software deployment and maintenance best practices.

Software Deployment and Maintenance Training – The Trust Hospital Company (30th November and 1st December 2024)

- Delivered internal sessions on secure software deployment and maintenance best practices.

Cybersecurity Awareness Seminar – Parliament House of Ghana (30th September 2023)

- Participated in staff cybersecurity sensitization workshop on data protection and phishing awareness.

ICT in Education Workshop – University of Education, Winneba (5th March 2022)

- Attended a seminar on the integration of information technology into teaching and learning.

SKILLS

- **Research Skills:** Data collection, literature review, system analysis, and report writing.
- **Communication Skills:** Technical documentation, teaching, teamwork, and presentation delivery.
- **Problem-Solving Skills:** Troubleshooting network and software issues, analytical thinking, and innovative solution design.
- **Technical Skills:**

Programming (HTML, CSS, JavaScript, PHP, Visual Basic),

Networking (LAN/WAN configuration, VPN setup),

Cybersecurity

- Firewall configuration
- VPN deployment
- Access control models
- Penetration testing fundamentals
- Network monitoring

Tools (Git, MySQL, WordPress, Figma, Microsoft Office, PowerPoint, Excel, Access, SPSS, Genstat).