

# WASIU BELLO

Technology Leader | Cybersecurity Researcher | Cloud Architect  
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## EXECUTIVE SUMMARY

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I am a technology strategist and cybersecurity researcher with 18+ years of progressive leadership in enterprise IT infrastructure, cloud architecture, and information security across telecommunications, financial services, and healthcare sectors. I am currently pursuing an MSc in Information Technology Management (Cybersecurity Analytics) and completed an MBA in IT Management at Lake Erie College, with active research in machine learning-driven credit risk modeling and healthcare cybersecurity policy. Demonstrated capacity to translate complex technical challenges into strategic, data-driven solutions that drive organizational resilience, regulatory compliance, and measurable business outcomes. Seeking to leverage dual-track expertise in applied research and enterprise technology leadership to advance cybersecurity innovation in academic or senior industry roles.

## EDUCATION

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### Master of Science in Information Technology Management

*Expected 2027*

*Oakland University, School of Business Administration*

*Rochester, MI*

Concentration: Cybersecurity Analytics | GRA, Department of e-Learning and Instructional Support

- Thesis-track research: Machine learning models for financial risk prediction; healthcare authentication security policy development.
- Coursework: Data Mining & Predictive Analytics, Information Security Management, Database Systems, AI in MIS, Digital Forensics.

### Master of Business Administration (MBA) in IT Management

*Completed 2025*

*Lake Erie College, School of Business Administration*

*Painesville, OH*

- Strategic focus on technology governance, enterprise risk management, and digital transformation leadership.
- Coursework: Business Analytics, Financial Analytics, Strategic Business Analysis, Information Management, Database Systems, AI in Marketing, Cybersecurity.

### Bachelor of Technology in Meteorology

*Federal University of Technology, Akure*

*Nigeria*

- Projects-track research: Initiation of West African squall line, Meteofrance climate forecasting.

## RESEARCH EXPERIENCE

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### Graduate Research Assistant

*2025 – Present*

*Oakland University, Department of Decision & Information Sciences,*

*Rochester, MI*

- Designed and executed a comparative machine learning study on credit card default prediction using a 30,000-record UCI dataset, evaluating logistic regression, decision tree, and Random Forest classifiers with rigorous train-validation-test methodology.

- Achieved 81.19% prediction accuracy with the Random Forest model (sensitivity: 36.40%, specificity: 94.24%), quantifying a projected \$396M annual savings potential for a 1M-account financial portfolio.
- Authored a 60-page healthcare cybersecurity research paper on EHR authentication and credential management at a 250-bed hospital, identifying 37 credential-sharing incidents per quarter and 38% weak password prevalence through comprehensive audit analysis.
- Developed an Issue-Specific Security Policy (ISSP) framework with measurable KPIs, targeting a reduction of shared login rates from 37/quarter to <4/quarter and MFA compliance from 77% to 100%.
- Conducted web application vulnerability assessments using OWASP ZAP, identifying 17 security alerts across production environments and producing multi-format deliverables (technical reports, executive summaries, and presentation decks).
- Performed digital forensics investigations involving industrial espionage scenarios, GPS-based evidence analysis, and PII/PHI breach classification under Michigan data breach notification law (MCL 445.72).
- Built predictive statistical models in SAS: multiple regression for price prediction ( $R^2 = 0.89$ ), logistic regression for workforce performance modeling, and multivariate analysis of competitive pricing dynamics.

## PUBLICATIONS & TECHNICAL WRITING

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**Bello, W.** (2025). *"Strengthening Authentication and Credential Management in Healthcare: A Case Study of EHR Access Control at Teesside Community Hospital."* Research paper prepared for journal submission (target: Journal of Medical Systems, Springer).

**Bello, W., Martins, J., & Siddiqui, H.** (2025). *"Machine Learning Models for Credit Card Default Prediction: A Comparative Analysis of Ensemble and Statistical Methods."* Research paper prepared for journal submission (target: Expert Systems with Applications, Elsevier).

**Bello, W.** (2025). *"Integrating Cybersecurity Intelligence with Data Analytics: A Synthesis of AI-Driven Security Management Frameworks."* Integrated research report, Oakland University.

**Bello, W.** (2025). *"Web Application Vulnerability Assessment: OWASP ZAP Analysis of Cloud-Hosted Infrastructure."* Technical report with executive briefing, Oakland University.

**Bello, W.** (2025). *"Digital Forensics Investigation: GPS-Based Evidence Analysis in Industrial Espionage Cases."* Case study and forensic report, Oakland University.

## PROFESSIONAL EXPERIENCE

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**Senior Cloud Infrastructure Architect & IT Strategy Lead**  
BCX Group / Reflex Solutions

2018 – 2023  
Johannesburg, South Africa

- Directed end-to-end cloud migration strategy for enterprise telecom infrastructure, transitioning 200+ servers from on-premises to hybrid cloud architecture, reducing infrastructure costs by 35%, and improving system availability to 99.97% uptime.
- Led a cross-functional team of 15 engineers in designing and deploying a multi-region disaster recovery framework, achieving <4-hour RTO and <1-hour RPO for mission-critical billing and CRM platforms.

- Architected a zero-trust network security model across 12 data centers, implementing micro-segmentation, SIEM integration (Splunk/Azure Sentinel), and automated threat detection that reduced mean time to detect (MTTD) by 60%.
- Drove cybersecurity governance strategy aligned with ISO 27001, NIST CSF, and local regulatory frameworks (NCC/NDPR), achieving audit compliance across all business units within 6 months.
- Negotiated and managed \$4.2M annual vendor contracts with AWS, Microsoft Azure, and Huawei Cloud, optimizing SLAs and reducing total cost of ownership (TCO) by 22% through workload rebalancing.
- Presented quarterly IT risk and strategy briefings to C-suite executives and board-level technology committees, translating technical vulnerabilities into business-impact language for investment prioritization.

### **Senior Technical Consultant**

*NTS Africa / Dell Technologies*

*2013 – 2018*

*Lagos, Nigeria*

- Designed and implemented enterprise network architecture supporting 50,000+ concurrent users across West Africa, achieving 99.95% network availability through redundant topology design.
- Led security operations center (SOC) buildout, deploying IDS/IPS, firewall rule optimization, and DDoS mitigation systems that reduced security incidents by 45% year-over-year.
- Managed a vulnerability assessment program covering 300+ endpoints, conducting quarterly penetration testing, and delivering remediation roadmaps to business stakeholders.
- Spearheaded network infrastructure modernization project (\$2.8M budget), migrating legacy MPLS to SD-WAN across 35 branch offices, improving bandwidth efficiency by 40% while reducing circuit costs.
- Developed and delivered cybersecurity awareness training programs for 500+ employees, reducing phishing click-through rates from 24% to 6% within 12 months.

### **Systems Administrator & IT Operations Lead**

*Troyka Holdings / Insight Publicis*

*2007 – 2013*

*Lagos, Nigeria*

- Administered enterprise IT infrastructure (Windows Server, Active Directory, Exchange, VMware) supporting 3,000+ users across 50+ branch locations in the financial services sector.
- Led core banking system migration project, coordinating with Temenos and Finacle vendor teams to execute zero-downtime cutover for 1.2M customer accounts.
- Implemented an identity and access management (IAM) framework, including RBAC, MFA, and privileged access management (PAM), reducing unauthorized access incidents by 70%.
- Designed automated backup and disaster recovery infrastructure, achieving 99.99% data integrity across geographically distributed data centers.
- Managed IT service desk operations (ITIL framework), improving first-call resolution rates from 62% to 88% and reducing mean ticket resolution time by 35%.

## **ACADEMIC PROJECTS & APPLIED RESEARCH**

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**Credit Card Default Prediction Using Machine Learning:** A comparative study evaluating three classifiers (logistic regression, decision tree, and random forest) on 30,000 customer records. The Random Forest model achieved the best performance (81.19% accuracy, AUC-informed threshold optimization). Business impact: projected \$396M annual loss reduction for 1M-account portfolio. Tools: SAS Enterprise, R.

**Healthcare EHR Authentication Security Polic:** Developed a comprehensive ISSP for Teesside Community Hospital addressing credential sharing, weak passwords, and MFA bypass vulnerabilities. Policy included

department-specific session timeouts, enforcement escalation matrices, and measurable KPIs tied to HIPAA/NIST compliance. Deliverables: 60-page research paper, 24-slide presentation with speaker notes.

**Web Application Vulnerability Assessment:** Conducted OWASP ZAP scans of cloud-hosted applications (AWS EC2), identifying 1 high-risk, 5 medium-risk, and 11 low/informational vulnerabilities. Produced technical reports with CVSS scoring, attack vector analysis, and 72-hour remediation timelines.

**Digital Forensics & Incident Response:** Investigated industrial espionage cases using GPS evidence analysis, identifying employee visits to three competitor headquarters (Ford, GM, Stellantis). Analyzed FBI-recovered dark web data for PII/PHI classification, applying Michigan MCL 445.72 breach notification requirements.

**Predictive Statistical Modeling Portfolio (SAS):** Built predictive models including multiple regression for automotive pricing ( $R^2 = 0.89$ , 4 significant predictors), logistic regression for IT workforce performance (experience 3x stronger than training), and multivariate competitive pricing analysis (\$45 per-route competitive impact). Emphasis on translating statistical findings into actionable business strategy.

**Cryptographic Algorithm Analysis:** Completed substitution-permutation network exercises demonstrating mastery of XOR operations, bit-level transformations, and encryption round structures. Verified results through programmatic validation.

**AI & Cybersecurity in MIS: Integrated Literature Synthesis**—Synthesized five peer-reviewed articles examining AI-driven security management, producing a 14-page report identifying seven integrative insights, including convergence of security and business intelligence, predictive governance frameworks, and socio-technical implementation challenges.

## TECHNICAL COMPETENCIES

Domain	Competencies
Cloud & Infrastructure	AWS (EC2, S3, IAM, CloudFormation), Microsoft Azure (Sentinel, AD), Huawei Cloud, VMware vSphere, Hyper-V, SD-WAN, MPLS, Docker
Cybersecurity	OWASP ZAP, Splunk SIEM, Azure Sentinel, Nessus, Wireshark, IDS/IPS, Zero Trust Architecture, Penetration Testing, Digital Forensics
Data Analytics & ML	SAS Enterprise Miner, SAS Base/STAT, R, Python, SQL, Logistic/Linear Regression, Random Forest, Decision Trees, Predictive Modeling
Frameworks & Standards	NIST CSF, ISO 27001/27002, HIPAA, COBIT, ITIL v4, GDPR, PCI-DSS, SOX, MITRE ATT&CK
IT Governance	Enterprise Risk Management, IT Strategic Planning, Vendor Management, Budget Optimization (\$4M+), Change Management
Research Methods	Comparative Experimental Design, Statistical Hypothesis Testing, Audit-Based Policy Analysis, Case Study Methodology, Literature Synthesis

## PROFESSIONAL CERTIFICATIONS

- Certified Information Systems Security Professional (CISSP) - *In Progress*
- Certified Information Security Manager (CISM) - *In Progress*

## **LEADERSHIP & SERVICE**

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- Graduate Research Assistant, Oakland University eLearning, Instructional Support - Contributing to faculty-led research in cybersecurity analytics and applied machine learning for financial and healthcare domains.
- Cross functional Team Leadership - Directed teams of 8–15 engineers across cloud infrastructure, network security, and IT operations spanning three multinational organizations.
- Cybersecurity Awareness Advocate - Designed and delivered enterprise security training for 500+ employees, driving measurable behavior change (phishing click-through reduced 75%).
- Technical Mentorship - Mentored junior engineers on cloud architecture best practices, security operations, and career development across Huawei, MainOne, and banking sector roles.
- Academic Knowledge Dissemination - Produced multi-format research deliverables (technical papers, executive summaries, presentations) bridging technical depth with stakeholder accessibility.

## **CONFERENCE ACTIVITY & PROFESSIONAL DEVELOPMENT**

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- Target conference submissions: AMIA Annual Symposium (healthcare cybersecurity), KDD (machine learning applications), IEEE S&P (security and privacy), HIMSS (health IT).
- Active engagement with OWASP community methodologies, NIST cybersecurity framework updates, and MITRE ATT&CK intelligence sharing.
- Continuous professional development in cloud security architecture, AI/ML for cybersecurity, and enterprise risk governance.

## **GRANTS, AWARDS & HONORS**

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- Graduate Research Assistantship, Oakland University, Department of e-Learning and Instructional Support, 2025–Present.