

LAVU MWEEMBA

Academic CV | Information Systems | Cybersecurity | Software Engineering

Ndola, Zambia | +260 971 531 796 | lavum27@gmail.com | [linkedin.com/in/lavu-mweemba-70b670184/](https://www.linkedin.com/in/lavu-mweemba-70b670184/) | github.com/lavu1

ACADEMIC PROFILE

Information systems professional and researcher with 5+ years of combined experience in systems administration, software engineering, quality assurance and database-backed application development. Current Master of Information Systems student at Copperbelt University, with research interests in cybersecurity, social assistance fraud, secure infrastructure, e-government systems, database reliability, mobile/web platforms and information systems for climate change mitigation and adaptation.

RESEARCH INTERESTS

- Cybersecurity, social engineering, scam tactics and fraud-prevention controls for public-sector systems.
- Information systems for social assistance, education administration, e-government and digital public services.
- Secure systems administration, disaster recovery, database integrity and access-management models.
- Information systems for climate change mitigation, adaptation and resilience in developing countries.
- Software engineering for mobile/web platforms, backend services and data-driven institutional systems.

EDUCATION

Master of Information Systems | Copperbelt University | Jul 2023 - Present | Kitwe, Zambia

- Current graduate work in secure information systems, enterprise applications, database management, systems analysis and software testing.

Bachelor of ICT with Education | Copperbelt University | Oct 2016 - Sep 2020 | Kitwe, Zambia

- Undergraduate training in software development, database management, ICT education, systems administration and technical documentation.

PUBLICATIONS AND CONFERENCE PAPERS

- **Cybercrime and social assistance: analyzing scam tactics and developing countermeasures - case study of developing country Zambia.** *7th International Conference in Information and Communication Technology (ICICT), Dec 2025.* [Link](#)
- Examines phishing, impersonation and social-engineering patterns affecting social-assistance beneficiaries and proposes server, application and database controls for stronger access management, data integrity and incident response.
- **Leveraging information systems for climate change mitigation and adaptation: a case study of developing countries learning from developed countries.** *7th International Conference in Information and Communication Technology (ICICT), Dec 2025.* [Link](#)
- Explores how resilient information systems, secure infrastructure and robust database management can support climate-change mitigation and adaptation in developing-country contexts.

RESEARCH AND TECHNICAL PORTFOLIO

- **Student Management Systems - ZUT and Copperbelt University** - Designed and maintained institutional student-management workflows, database structures, user roles, reporting features and user support processes; current work includes SMS development for Copperbelt University. **Technologies:** PHP/Laravel, MySQL, Node.js, Linux
- **Social-impact and Public-information Platforms** - Developed platforms and mobile applications such as Zambia Job Alerts, Zambia Breaking News and Open Heart, supporting information access and community/user engagement. **Technologies:** Web/mobile, Node.js services
- **Payroll, HR and Business Systems** - Developed systems and websites for People Plus, Tizibane HR and business clients, integrating database-backed workflows and administrative modules. **Technologies:** PHP/Laravel, MySQL, web deployment
- **Mobile Applications** - Built 10+ Android/iOS applications including Zambia Job Alerts, Stream Wave, Zambia Breaking News, Open Heart, To Do List and Puzzle; selected Android apps published on Google Play. **Technologies:** Mobile applications, backend services

- **Node.js Automation Services** - Built private backend services for mobile notifications, automation and support tasks; 30+ private GitHub repositories under username lavu1. **Technologies:** Node.js, JavaScript, APIs
- **Selected Websites** - zinstablog.com, zut.ac.zm, zcas university, zambijobalerts.com, Northern Eye Clinic, lamangaltd.com, axisresourceslimited.com, tizibane.com, peoplesplussolution.com and jungleafricaltd.com. **Technologies:** Web systems and deployment

PROFESSIONAL EXPERIENCE

Systems Administrator | Zambia University College of Technology | Feb 2026 - Present | Ndola, Zambia

- Administer server infrastructure, enterprise applications, databases, access control, backup/recovery, disaster-recovery preparation and security monitoring for institutional systems.
- Prepare system reports, user guidelines and technical manuals while supporting requirements analysis, testing, usability assessment and stakeholder engagement.
- Manage enterprise data policies, database updates, repositories, storage optimization, data security, stability and availability.

Software Engineer | Zambia University College of Technology | Feb 2023 - Jan 2026 | Ndola, Zambia

- Developed, deployed and maintained institutional applications using PHP, Laravel, Java, Python and Node.js, supporting academic and administrative workflows.
- Designed and managed MySQL and enterprise databases, improving database controls and reducing data conflicts and integrity issues by over 30%.
- Contributed to software testing, systems analysis, user documentation and stakeholder requirements discussions.

Quality Assurance Engineer | Flocash Limited | Jul 2021 - Feb 2023 | Ndola, Zambia

- Reviewed requirements, prepared test cases and executed functional, regression and usability testing for payment applications and backend services.
- Documented defects, database-impacting bugs and performance issues, coordinating with developers to support release quality.

Software Developer | Northrise University | Jan 2021 - Jul 2021 | Ndola, Zambia

- Configured enterprise applications, backend services, application/database servers, user access roles and technical documentation for university systems.
- Supported systems analysis, software testing, database management, backup/recovery routines and user documentation.

TECHNICAL AND RESEARCH SKILLS

Research and Analysis: case-study analysis, requirements analysis, systems analysis, technical writing, stakeholder engagement, documentation

Software and Data: PHP, Laravel, JavaScript/Node.js, Java, Python, SQL, MySQL, PostgreSQL, data modelling, database integrity

Infrastructure and Security: Linux, Windows Server, Active Directory, backups, disaster recovery, access control, security monitoring

Testing and Quality: test case design, functional/regression/usability testing, defect analysis, user acceptance support

Portfolio: 30+ private GitHub repositories; selected code samples and project demonstrations available on request

TRAINING, CERTIFICATIONS AND ENGLISH PROFICIENCY

Practical Cybersecurity for Internet Operators Workshop: ZAMREN / NSRC, Livingstone, Zambia | 4-8 May 2026

Duolingo English Test: Overall 120, CEFR B2 | Writing 130, Production 125 | Test taken Mar 2025

ICTAZ Associate Member: Information and Communications Technology Association of Zambia | Membership No. AS002874 | Registered May 2025

AWARDS AND PROFESSIONAL MEMBERSHIPS

Best Reliable Employee: Zambia Federation of Employers / Zambia University College of Technology | May 2025

Information and Communications Technology Association of Zambia: Associate Member

Web Developers Zambia: Member; technology community engagement

Royal Hands Foundation: Community volunteer, Ndola, Zambia | Feb 2021 - Present

REFERENCES

Dr Maybin Lengwe

maybin.lengwe@cbu.ac.zm

+260 967331064

Copperbelt University

Dr Philimon Mumba

phimon.mumba@cbu.ac.zm

+260 979547655

Copperbelt University