

# TITUS KYOYO MBOYA

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## Professional Title

**Software Engineer | AI/Machine Learning Engineer | ICT & Research Professional**

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## PROFESSIONAL SUMMARY

Versatile and results-driven professional with strong expertise in **software development, artificial intelligence and machine learning, and ICT support**. Skilled in building efficient and user-centred applications that deliver practical solutions. Experienced in applying **AI and ML techniques** for data analysis, automation, and intelligent system design. Adept at providing **technical support and system maintenance** to ensure seamless operations and continuous improvement across digital platforms.

## EDUCATION

### Bachelor of Science in Computer Science (2025)

Maseno University, Kisumu, Kenya | Second Class Honors, Upper Division ( $\approx$  GPA 3.5/4.0)  
Relevant Coursework: AI + Software Engineering, Data Structures, Database Systems

## CERTIFICATIONS

- **Software Engineering Certification** – Moringa School (2024): Full-stack development, best practices in software engineering, and collaborative coding.
- **Data Analytics with Excel & Python** – Google (2024): Advanced analytics techniques for data processing, visualization, and insights.
- **Machine Learning Specialization** – Coursera (Ongoing): In-depth study of ML algorithms, neural networks, and AI applications.

## ACHIEVEMENTS

- **TechPulse:** Designed & implemented an ML-powered content-based recommendation system using supervised learning techniques; improved user engagement by **25%** through personalized feeds.
- **Mkulima Farm Management System:** Built an FMS to track labour, activities, and yields; reduced reporting errors by **30%** and improved task allocation speed by **40%**.
- **Earth Flow** – Developed an analytics tool with weather forecasts and location data; enabled farmers to make data-driven decisions, reducing planning time by **20%**.

## **PROFESSIONAL EXPERIENCE**

### **IT Officer (Deployed by the ICT Authority) – KIHBT, Nairobi.**

*Nairobi County, Kenya*

**January 2026 - Present.**

- Support **KIMS UI/UX improvements** and conduct **user training**, enhancing system adoption and usability.
- Draft **AI/ML deployment proposals** and identify automation opportunities for digital processes.
- Provide **technical support**, troubleshoot issues, and contribute to digital innovation initiatives.
- Develop **training manuals and resources** to support continuous system adoption.

### **IT Support Specialist – Volunteer | CarifikaGlobal**

*Remote, Canada*

**October 2025-Present**

- Provide IT support and troubleshoot system issues across distributed teams.
- Manage user accounts, perform hardware and software configurations, and ensure system uptime.
- Assist in website maintenance, data backup, and workflow automation.
- Support cybersecurity awareness and staff digital onboarding processes.
- Collaborate remotely using cloud tools to maintain communication and efficiency across departments.

### **Software Developer – Freelance & Academic Projects**

*Remote / Campus-Based*

**April 2022-Present**

- Engineered **5+ full-stack applications** with real-time dashboards, improving client and student productivity by up to **30%**.
- Designed secure Firestore database structures and implemented Firebase Authentication, supporting **100+ concurrent users** without downtime.
- Built responsive front-end applications using HTML, CSS, JavaScript (ES6+), Tailwind, and Bootstrap 4, ensuring **100% mobile compatibility**.
- Collaborated in project sprints using Git/GitHub, maintaining clean, reusable, and scalable codebases.

### **ICT Attaché - Office of the Governor, Kitui County.**

*Kitui County, Kenya*

**April 2024 - August 2024.**

- Provided end-to-end ICT services across 5 departments, improving system uptime by **15%**.
- Optimised digital records workflows, reducing data retrieval time by **30%**.

- Configured and maintained hardware and networks, resolving **95%** of technical incidents within SLA.
- Trained staff on digital tools (Excel, Google Docs, Canva), increasing task efficiency by **20%**.

### **ICT Trainer & Volunteer**

*Kisumu County, Kenya*

**Jul 2023 – Dec 2023**

- Trained **100+ youth and job seekers** on essential digital tools for employment readiness.
- Conducted interactive workshops on Canva, Excel, and Google Docs, improving digital literacy by **40%**.
- Designed tailored training resources, ensuring accessibility for diverse learner groups.

### **TECHNICAL SKILLS**

- **Programming & Scripting:** Python, PHP, Java, JavaScript (ES6+), HTML5, CSS3, R
- **Frameworks, Libraries & Technologies:** React, Express.js, Laravel, Node.js, Tailwind CSS, Bootstrap 4/5, Firebase, REST APIs, Responsive & Mobile-First Design, Accessibility (WCAG basics), Cross-Browser Compatibility
- **AI/ML & Data Science:** Scikit-learn, Pandas, NumPy, TensorFlow, Data Visualization (Matplotlib, Seaborn),
- **Databases, Cloud & DevOps:** MongoDB, PostgreSQL, Firestore (NoSQL), MySQL, Google Cloud, Firebase Cloud Functions, Database Schema Design, CRUD Operations, CI/CD Basics, Environment Configuration, Serverless Architecture Concepts
- **Tools & Platforms:** Git, GitHub, VS Code, Figma (UI/UX Design & Collaboration), Postman, Linux/Ubuntu, Excel, Google Workspace, MS Office
- **ICT Support & Systems Administration:** Hardware & Software Troubleshooting, Network Configuration (LAN/Wi-Fi basics), System Maintenance & Backup, Cybersecurity Awareness & Best Practices
- **Project Management & Collaboration:** Agile & Scrum, Sprint Planning & Task Tracking, Technical Documentation, Remote Collaboration (Slack, Google Meet), Client & Stakeholder Communication
- **Soft & Professional Skills:** Problem-Solving, Analytical Thinking, Communication, Remote & Team Collaboration, Research & Technical Writing, Debugging

## **LANGUAGES**

- English-Fluent
- Swahili-Fluent

## **PERSONAL INTERESTS & HOBBIES**

- Travelling & Exploring New Cultures
- Playing Chess

## **REFEREES**

Available on request