

NYANCHOKA JOEL OTACHI

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 : [Portfolio](#)

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PROFESSIONAL SUMMARY

Full-Stack Software Engineer and Research-Oriented Computer Scientist with strong expertise in web and application development, backend and frontend systems, system integration, and debugging, hardware, software, networking and maintaining systems. Actively engaged in low-resource language NLP research, focusing on dataset creation, preprocessing, and synthetic data generation.

EXPERIENCE

ICT Support

Kenya Ministry of Agriculture and Livestock Development – Intern

Jan 2026 – Present

Key tasks

- Provide technical support for hardware and software issues across the ministry.
- Maintain and troubleshoot computer systems, networks, and ICT infrastructure.
- Assist staff in using digital tools, applications, and internal systems efficiently.
- Support system integration, upgrades, and preventive maintenance.
- Collaborate on implementing ICT solutions to enhance operational efficiency.

NLP Research Fellow, MCAAI

Maseno Centre for Applied Artificial Intelligence (MCAAI)

Oct 2025 – Present

As a low-resource language NLP researcher, I focus on dataset creation and preprocessing for African languages, particularly **Swahili and Somali**, using sources such as Wikipedia dumps, Hugging Face datasets, and parallel corpora.

Key tasks:

- Collecting and cleaning large-scale text datasets.
- Extracting and preprocessing Wikipedia and Hugging Face data.
- Carrying Back Translation using parallel corpora data.
- Creating datasets for NLP tasks like classification, QA, and translation.

ICT Authority – Attaché

May 2024 – August 2024

- Participated in National Government ICT projects that were undergoing at that time, included National Optic Fiber Optic Infrastructure (NOFBI) and County Connectivity Project (CCP), Digital Literacy Jitume Program and Public WIFI Project impacting over 50,000+ users across multiple counties.
- Performed routine maintenance and support of both hardware and software systems, ensuring 99% uptime and optimal performance in government offices.

EDUCATION

Maseno University

Bachelor of Science in Computer Technology

Kisumu, Kenya.

Sept 2021 - May 2025

SKILLS

Technical Skills

- **Systems & Networks:** Windows, Linux, TCP/IP, VLANs, DHCP, DNS, Firewall configuration, Basic penetration testing, Installation & troubleshooting of hardware/software, System maintenance
- **Programming & Development:** Python, Java, PHP, C, Dart, HTML, CSS, JavaScript, Bootstrap, Angular, React, MySQL, Flutter
- **Data & NLP (Research):** spaCy (basic), NLTK (basic), Pandas, NumPy, Transformers (basic), Wikipedia dump extraction, Text cleaning, Preprocessing
- **Tools & IDEs:** VS Code, PyCharm, NetBeans, Cisco Packet Tracer, Proteus, SVN, Git (optional), JUnit, Spring

Soft Skills: Communication, Time management, Teamwork, Problem-solving, Research and analytical thinking

PROJECTS

- **E-commerce Website**

Technologies: HTML, CSS, Bootstrap, JavaScript, PHP, MySQL

Description: Built a full-stack online shopping platform with user authentication, product catalog, and payment integration.

Link kambikuucomputers.wuaze.com

- **Wi-Fi Captive Portal**

Technologies: PHP, MySQL, Html, CSS, JavaScript, Bootstrap

Description: Developed a network login portal for Wi-Fi access control and user authentication.

- **Bursary Application App**

Technologies: Flutter, Firebase, Android Studio

Description: Mobile app for bursary application submission and tracking for iOS and Android.

CERTIFICATIONS

Cisco Networking Academy

- Network Security
- Introduction to Networking
- Cybersecurity Essentials
- CCNA v7