KINYUA NICHOLAS MUCHIRI

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GitHub link: https://github.com/MuchiriKinyua

Portfolio link: https://muchirikinyua.github.io/personal-portfolio/

LinkedIn link: https://www.linkedin.com/in/muchiri-kinyua9b702620a/

PERSONAL DETAILS

Languages: English, Swahili   **Nationality:** Kenyan   **Gender:** Male

PROFESSIONAL SUMMARY

I am a versatile IT graduand with a a bachelor's degree in communication and computer networks. My skills lie in programming for mobile applications using Flutter, web development with Laravel, Node.js, exploring the realms of Artificial Intelligence and harnessing the power of Python for data science and Machine Learning and networking with cisco.

In addition to my technical skills, I am a dependable, hardworking, and committed team player who excels under pressure and requires minimal supervision. I have a customer focused approach and thrive in solving complex problems, adapting to new challenges, and troubleshooting midrange systems.

My strengths also include exceptional problem-solving abilities, data analysis proficiency, and the capacity to implement effective solutions, all while adhering to tight timelines and maintaining a professional demeanour. I bring to the workplace a strong sense of teamwork, organizational prowess, efficiency, and attention to detail. I take pride in my work, relish challenges, and possess excellent verbal and written communication skills, enabling me to connect with diverse groups of people.

My skills have been honed through valuable work experiences and active community involvement over the years. I am determined to make a positive impact and succeed in the dynamic IT industry.

PROFESSIONAL LANGUAGES

- Python   SQL   HTML
- CSS   PHP   DART

KEY SKILLS AND COMPETENCIES ACQUIRED

- **Python:**   **SQL:**

Data Science   Database Management

Data Analysis   SQL Queries

Data Visualization   Data Retrieval

Supervised Machine Learning   Data Manipulation

Unsupervised Machine Learning   Relational Databases

- **HTML:**   **CSS:**

Web Development   Cascading Style Sheets

Front-End Development   Responsive Web Design

Web Design   Styling Web Pages

- **DART:**   **PHP:**

Flutter App Development   Web Development

Mobile App Development   Front-End development

UI Design in Dart/Flutter   Backend development

TOOLS

Laravel   Node.js   MongoDB

Tableau   Oracle   PowerBI

Figma   Supervised ML   Unsupervised ML

NETWORKING

- CCNA 1
- CCNA 2
- CCNA3

KEY SKILLS AND COMPETIENCIES ACQUIRED

- **CCNA 1**
  Configure switches and end devices to provide access to local and remote resources.
  Configure routers to enable end-to-end connectivity between remote devices.
  Configure a network with security best practices
  Create IPV4 and IPV6 addressing schemes and verify network connectivity between devices.

- **CCNA 2**
  Configure VLANS and inter-VLAN routing on Layer 3 devices.
  Troubleshoot inter-VLAN routing on Layer 3 devices.
  Configure redundancy on a switched network using STP and EtherChannel.
  Troubleshoot EtherChannel on switched networks.
  Configure dynamic address allocation in IPV6 networks.
  Configure switch security to mitigate LAN attacks.

- **CCNA 3**
  Configure single-area OSPFv2 in both point-to-point and multiaccess networks.
  Implement standard IPV4 ACLs to filter traffic and secure administrative access.
  Configure NAT services on the edge router to provide IPV4 address scalability.
  Implement protocols to manage the network.

TOOLS

Cisco packet tracer

ENSP

PROJECTS (Programming and Networking)

1. Hotel booking and cancellation system (Python and Laravel)

This project aimed to analyze hotel booking data to understand and predict factors influencing cancellations. With a focus on city and resort hotels. The goal is to identify patterns and provide recommendations to mitigate cancellation rates. Laravel was used to create a frontend (website) and backend (database) platform which can be used by hotel staff.

Project link: https://github.com/MuchiriKinyua/Hotel-booking-and-cancellation-system

2. SMALL-SCALE Dairy Farm Information Management (Flutter Application)

SMALL-SCALE Dairy Farm Information Management System refers to a system that automates the activities of small-scale dairy farmers. This is because farmers practicing this type of farming keep their records manually or even don't keep their records at all.

I integrated **M-Pesa daraja API** from Safaricom with Dart programming language to enable farmers to make milk transactions directly with the application and store them for future transactions. This resulted to an application called Mmaziwa (Mobile-maziwa).

Project link: https://github.com/MuchiriKinyua/Mmaziwa

3. Natural Language Processing (Unsupervised Machine Learning)

Sentiments on crowd flower brands and product emotions NLP project

It involved analysing and processing textual data related to brands and product emotions. I applied various NLP algorithms and methodologies to gain insights into customer sentiments and emotions associated with different brands and products. This experience allowed me to enhance my skills in text analysis and sentiment classification, contributing to my proficiency in NLP and data-driven decision-making.

Project link: https://github.com/MuchiriKinyua/Phase-4-NLP-Project

4. Understanding Flu Vaccine Hesitancy (Supervised Machine Learning)

This project is aimed to provide insights into predicting seasonal flu vaccination status accurately and identifying key factors influencing vaccination decisions. The results from this study could contribute to optimizing pro-vaccination efforts and targeting specific subgroups to maximize the benefits of herd immunity, particularly in the context of seasonal flu.

Project link: https://github.com/MuchiriKinyua/Flu-Vaccine-Hesitancy-Classification-main

5. Zamana Business Park (cisco networking)

Zamani Business Park, is a development organized in blocks of five floors each. One of the blocks within the development has no network implemented that will make it possible for users in different businesses within the block to access relevant services such as document sharing, emails and printing. To help solve the problem, the network design of the of the block within the development will allow for a robust network that works efficiently, quickly and provides better performance overall including personal computers and work stations sharing files and can be accessed by each other over a single internet connection. Of importance is to secure the network from security risks that interfere with the integrity of the network.

Project link: https://github.com/MuchiriKinyua/Cisco-project

ATTACHMENT(Networking)

National Museum of Kenya | January – April 2023

- Troubleshooting connectivity of all departments in the museum.

- Mitigating threats and enhancing network security using access control lists and security best practices.

- Optimizing, monitoring and troubleshooting scalable network architectures.

- Configuring WLANS using a WLC and L2 security best practices.

- Monitored the use of computers, media equipment, printing equipment, and other machines to ensure compliance with museum policies and applicable laws and regulations.

- I performed troubleshooting of hardware, terminals, software, and connectivity issues.

- Assisted my supervisor with basic record keeping and bookkeeping.

- Configuring IPV4 and IPV6 static routing on routers.

- Learned to operate various equipment in the media centres, including photo and video equipment, software, etc.

Attachment report: https://github.com/MuchiriKinyua/Attachment

EDUCATION

2017 - 2022: Bachelor of Communication and Computer Networks at Technical University of Kenya.

2003 - 2006: Kenya Certificate of Secondary Educations (KCSE) at Gaichanjiru High School. Attained Grade of B (plain).

1995 - 2002: Kenya Certificate of Primary Educations (KCPE) at Joystar Academy. Attained a 349/500 marks.

TRAININGS AND WORKSHOP

April 2023 – September 2023: Data Science with Machine Learning at Moringa School

January 2022: Python for data science at Jomo Kenyatta University of Agriculture and Technology (JKUAT).

January 2021 - April 2021: Cisco Certified Network Associate 1 – 3, JKUAT, school of computing and information technology.

2018: Computer Literacy, Aberdare Institute of Management.

2018: Driving Literacy, Petanns Driving School.

MEMBERSHIP

Machine learning and data science group Technical University of Kenya.

Green hearts movement Technical University of Kenya.

HOBBIES

- Web development using HTML and CSS.

- Python Programming for Data Science and Machine Learning.

- Learning networking using Cisco Packet Tracer and eNSP.

Referees

- Winnie Anyoso – 0713 163 901 (Data Science Technical Mentor)
- Luke Okelo – 0723 650 683 (Project Supervisor)
- Lorna Muriithi – 0726 150 699 (Attachment Supervisor)