**MACHINE LEARNING MODEL FOR SKIN CANCER DETECTION AND CLASSIFICATION**

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**A Project Thesis submitted to the Department of Computing and Informatics for Partial Fulfillment of the Requirements for Bachelor of Science in Computer Science of Laikipia University.**

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# DECLARATION

I hereby declare that this research thesis is my creative and original work and has not been submitted to any other university for the purpose of academic award. Any information is given in this entire documentation and all the relevant sources are quoted and acknowledged accordingly.

**Signature ………………………………… Date …………………………….**

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# RECOMMENDATION

The Project Thesis entitled “Linux Based Network Monitoring Tool‟ written by Karanja Chiuri Gachuhi is presented to the Department of Computing and Informatics of Laikipia University.

We have reviewed this thesis and recommended it be accepted in partial fulfillment of the requirements for the Bachelor’s Degree in Computer Science.

**Signature ……………………………………… Date …………………………….**

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# DEDICATION

I dedicate this research to my mother who has been there for me and whose good principles have helped me push through to make the right choices in life. It is also dedicated to my friends who have always been a constant source of support and encouragement during the challenges of my academic life. Also, to my brother and who am truly grateful for having in my life. This work is also dedicated to all those who possess an interest in Networking and Network Security that is integrated with python coding.

# ABSTRACT

Securing network communication is a crucial step in organizations and institutions, this is also beneficial to home-internet users. Networks are the basic first step for communication between two computers/nodes, the internet is a good example of a network that covers the entire world and enables users connected to the network to relay information between each other.

Network security has been neglected and most people are not aware on the potential consequences brought about by network attacks. The main aspect of network attacks is the fact that the confidentiality, integrity and availability of data is at stake. Users are prone to attacks especially after the COVID-19 pandemic mainly because these attacks have risen up to about 600%. Remote working is also at a major disadvantage due to these cyber-attacks.

This project presents an interface for any user, especially network administrators, a platform where they can monitor their network and perform some analysis tasks that help prevent and detect cyber-attacks on the network.

Keywords: Scapy, NMAP, Sniffing packets, Ping tests, Packet analysis, Port scanning.