

INFORMATICS INSTITUTE OF TECHNOLOGY

In Collaboration with

UNIVERSITY OF WESTMINSTER

Melanoma Skin Cancer Detecting System Using

Deep Learning

Thesis

Sahas Kulasekera

Supervised by

Mr. Sriyan Fernando

Submitted in partial fulfilment of the requirements for the BEng (Hons) Software Engineering degree at the University of Westminster.

2023

ABSTRACT

The report focuses on the early stages of melanoma skin condition diagnosis using artificial intelligence and deep learning. The Melanoma Skin Cancer Detection System is an advanced solution that employs deep learning techniques. In today's fast-paced world, many individuals tend to overlook the importance of detecting and addressing life-threatening diseases. There is a lack of interest in taking necessary actions.

This project aims to provide a cost-free self-examination opportunity for those who suspect they might have such a disease. Furthermore, it raises awareness about other types of skin cancers. If the test results indicate a possible melanoma condition, individuals are encouraged to seek their first consultation with a dermatologist. By detecting the disease early, prompt treatment can be initiated.

Moreover, existing apps for such purposes are often overly complex, resulting in poor user experience. In contrast, this application has been designed to be easily accessible and understandable for individuals of all ages and levels of awareness.

Through this project, individuals who may not prioritize their health can gain understanding about this issue, save significant amounts of money and time by obtaining more accurate results, increase their knowledge about different skin cancers, and become informed about preventive measures to reduce the risk of such diseases. Additionally, by obtaining proper medical support, potential issues can be identified early and effectively addressed.