

# DermaGuard: AI-Driven Precision in Skin Cancer Detection

Leveraging Machine Learning for Accurate Skin Cancer Detection

- By Daryl Wanji





Data Science

# Daryl Wanji

Data Scientist | Bsc Computer Science & Diploma in Data Science | Python, R, SQL, Tableau, Machine Learning

📍 Toronto, Canada

OPEN TO RELOCATION



## Degree

B.Sc Computer Science



## 4 Years

Data Analyst

Customer Service



## Skills

Python, R, SQL, Tableau, Machine Learning



## Project

DermaGuard: AI-Driven Precision in Skin Cancer Detection



## Certifications

Databricks - GenAI fundamentals



PCEP - Python Programmer



## Languages

Fluent in English & French

✉️ [Daryl.wanji@gmail.com](mailto:Daryl.wanji@gmail.com)

🌐 [github.com/Darylwanji](https://github.com/Darylwanji)

linkedin.com/in/darylwanji

# Project objectives

Early detection of skin cancer is crucial for effective treatment and improved survival rates.



- 01 Conduct thorough EDA to understand the dataset's characteristics, identify patterns, and preprocess the data effectively for model training.
- 02 Utilize state-of-the-art convolutional neural networks, specifically DenseNet and ResNet, to achieve high accuracy in skin cancer detection.
- 03 Serve as educational tools for training dermatology students and residents, providing high-quality examples of skin lesions and their boundaries.

# Data

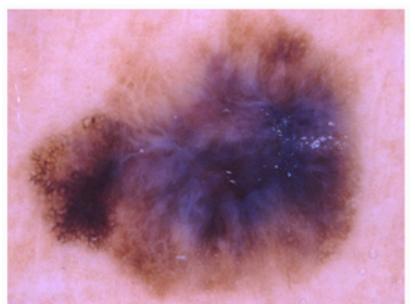
Nevus



Dermatofibroma



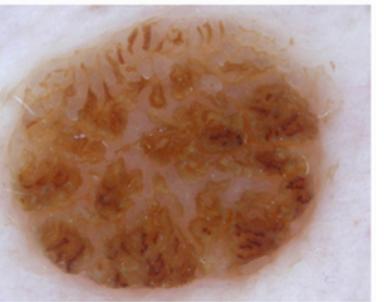
Melanoma



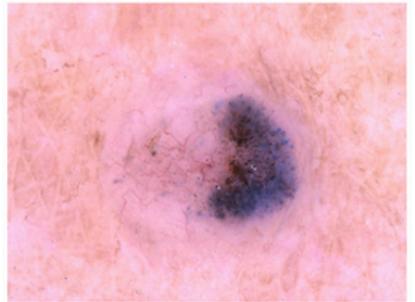
Pigmented  
Bowen's



Pigmented Benign  
Keratoses



Basal Cell  
Carcinoma

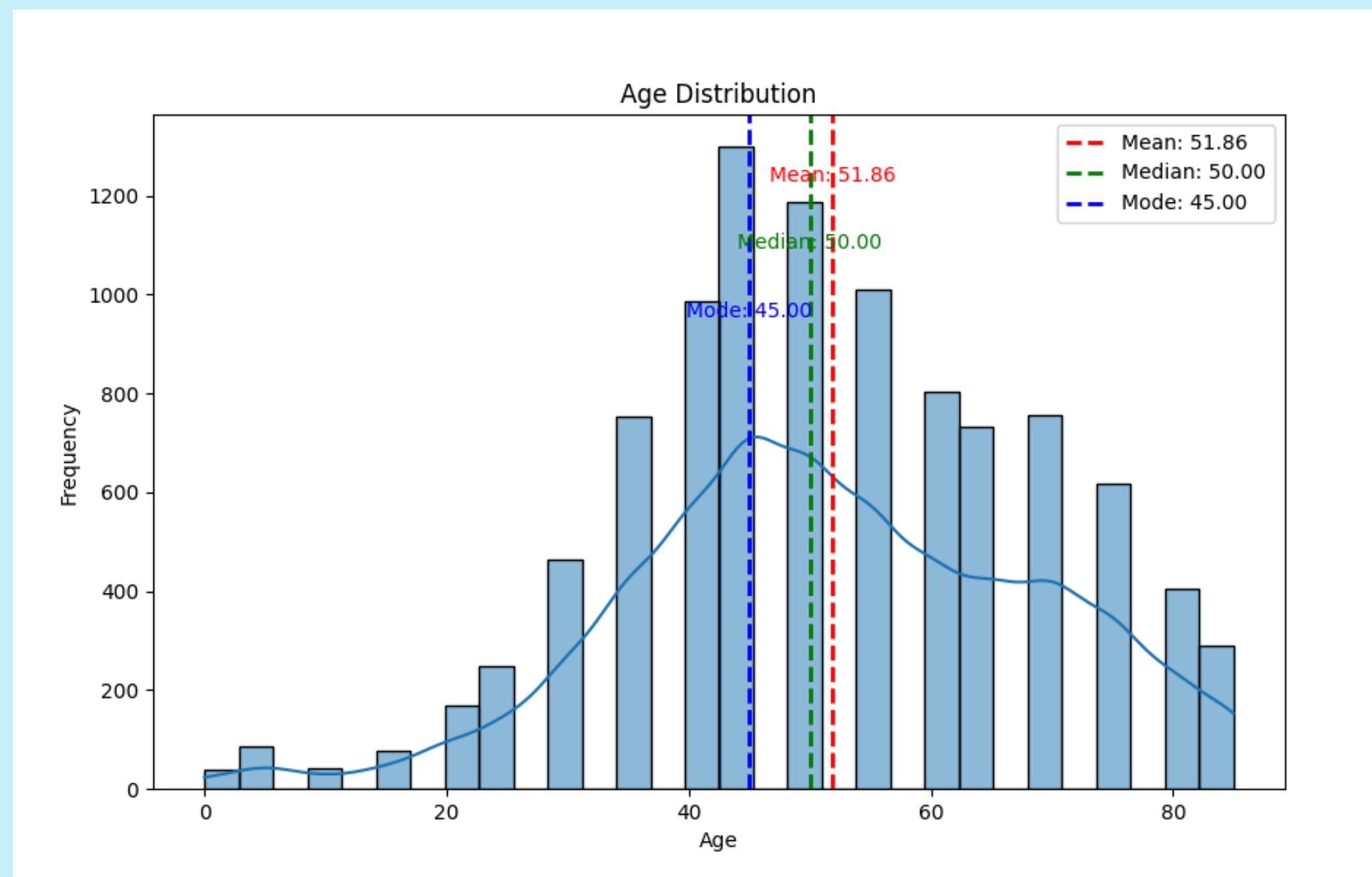


Vascular



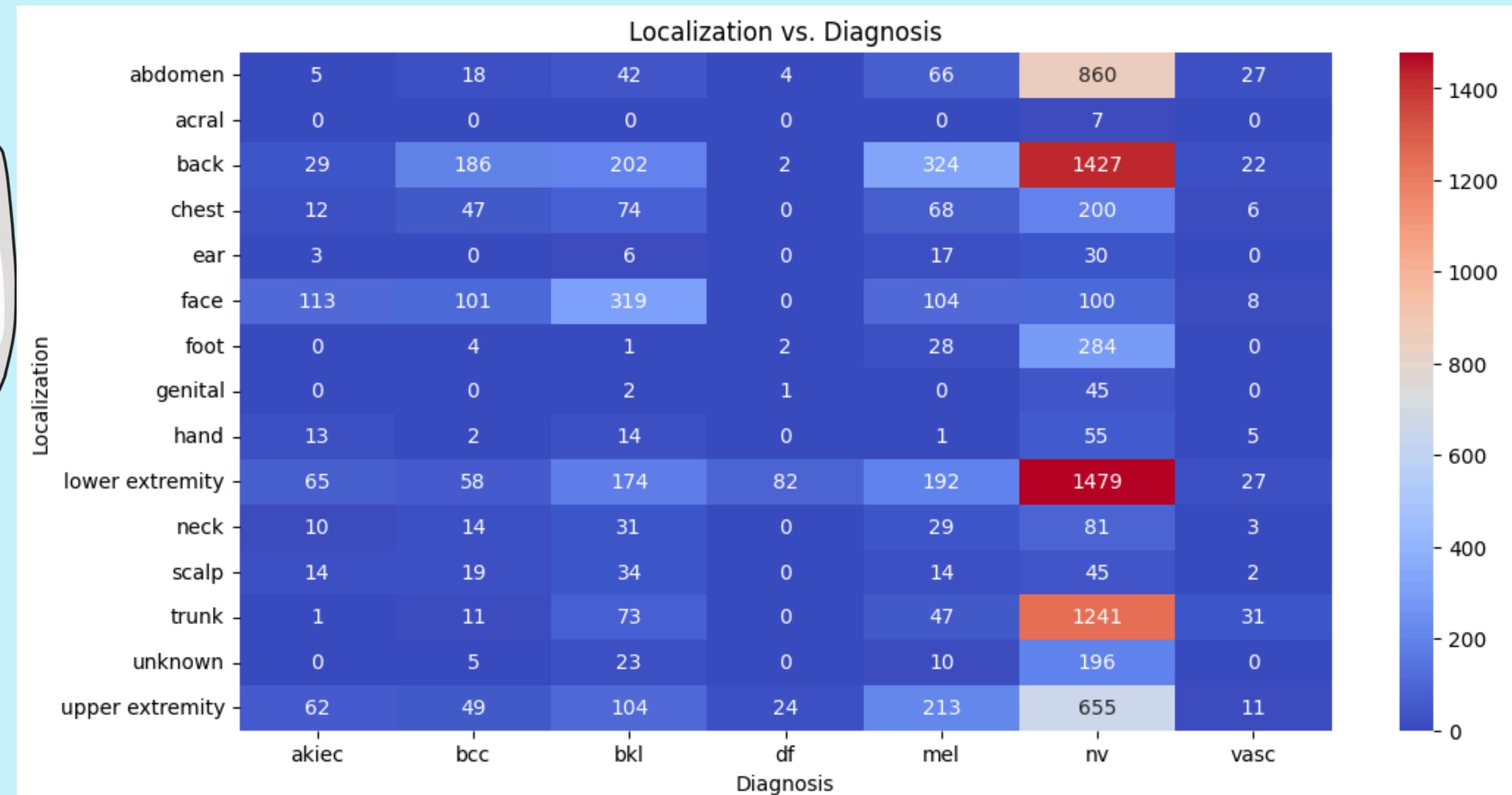
# Insights

## Age - Diagnosis



# Insights

## Location - Diagnosis



# Models

ResNet

Loss	Accuracy
0.91	0.718

DenseNet

AUC	Accuracy
0.90	0.77



# DEMO



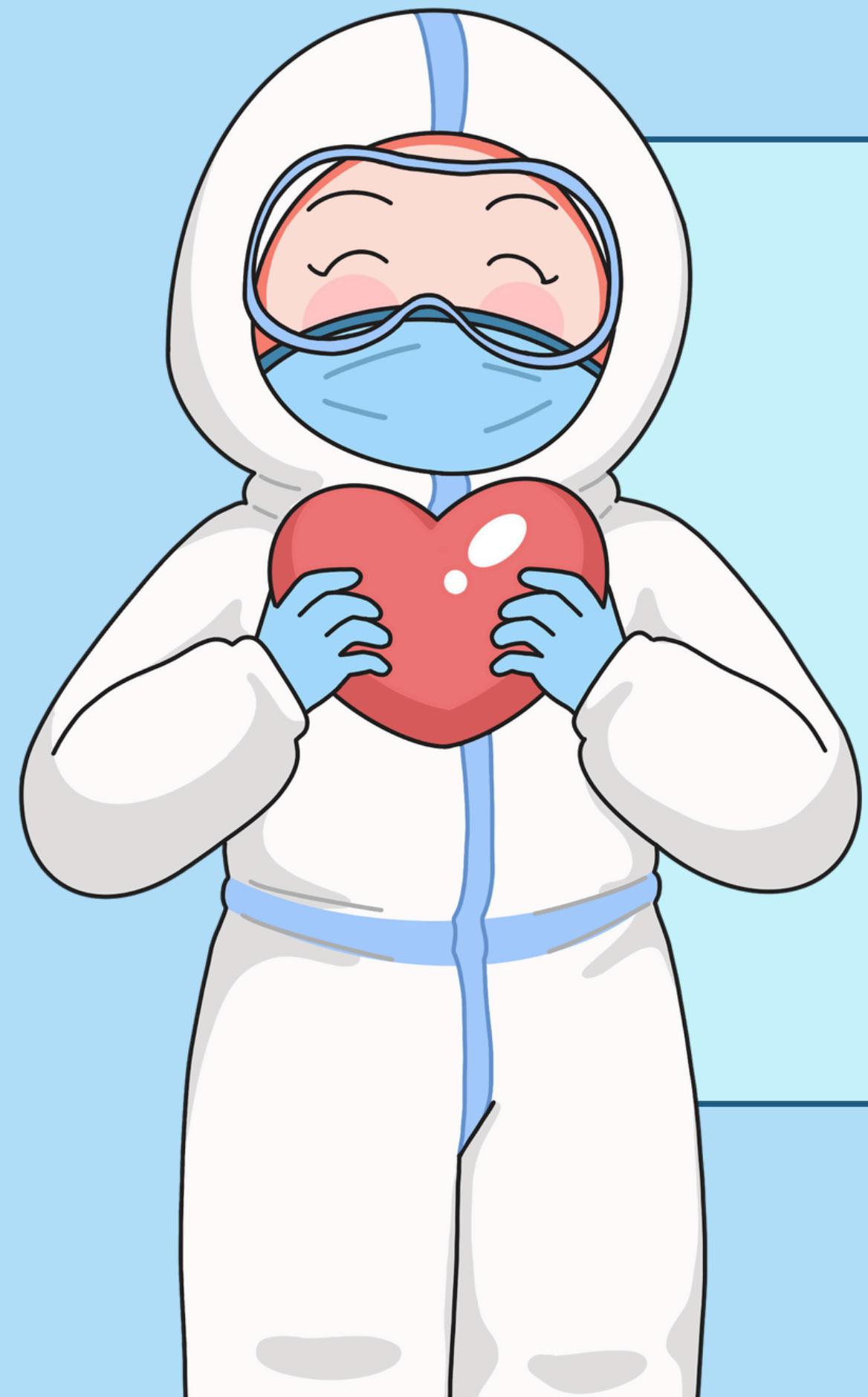
 SCAN ME



# Key Learning

- DenseNet & ResNet Architecture
- Image processing





**THANK YOU!**

# LinkedIn



SCAN ME

# Github



SCAN ME



Data Science

# Daryl Wanji

Data Scientist | Bsc Computer Science & Diploma in Data Science | Python, R, SQL, Tableau, Machine Learning

📍 Toronto, Canada

OPEN TO RELOCATION



## Degree

B.Sc Computer Science



## 4 Years

Data Analyst

Customer Service



## Skills

Python, R, SQL, Tableau, Machine Learning



## Project

DermaGuard: AI-Driven Precision in Skin Cancer Detection



## Certifications

Databricks - GenAI fundamentals



PCEP - Python Programmer



## Languages

Fluent in English & French

✉️ [Daryl.wanji@gmail.com](mailto:Daryl.wanji@gmail.com)

🌐 [github.com/Darylwanji](https://github.com/Darylwanji)

linkedin.com/in/darylwanji