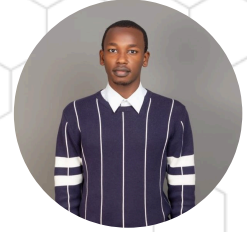


# ISAAC MUNGAI MBUGUA

AI & Machine Learning Trainee | Software Developer

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## SUMMARY

I am a dedicated Computer Science student with a passion for AI and Machine Learning. My hands-on experience in building intelligent software solutions and web/mobile applications has equipped me with a strong foundation in designing, developing and deploying AI models. I am keen on contributing to innovative projects that leverage technology for real-world solutions while upholding ethical standards in AI development.

## EXPERIENCE

### Web & Mobile Application Developer

#### CropDoctor

07/2025 - Present Kenya

A startup focused on agricultural technology solutions.

- Built an intelligent system for diagnosing crop diseases using Python and PyTorch.
- Implemented image preprocessing and model training for real-time applications.
- Strengthened full-stack integration skills through web and mobile application development.
- Tech stack: Python, PyTorch, React, React Native(Expo).

### Machine Learning Developer

#### SugarCheckAI

01/2025 - 03/2025 Kenya

Health technology web application specializing in predictive healthcare applications.

- Developed a diabetes risk prediction platform using machine learning techniques.
- Handled dataset preprocessing, model evaluation, and feature selection for accurate predictions.
- Designed a secure interface for user data input and result delivery.
- Tech stack: Python, PyTorch, Streamlit

### Machine Learning Project Developer

#### Handwritten Digit Recognizer

04/2025 - 06/2025 Remote

Personal projects to enhance practical machine learning skills.

- Created a handwritten digit recognition system achieving 91% accuracy using KNN algorithm.
- Focused on data normalization, model evaluation, and error analysis to improve performance.
- Developed the entire project workflow from data collection to model testing.
- Tech stack: Python, Streamlit, Sci-kit Learn

## EDUCATION

### Bachelor of Science in Computer Science

#### Kaimosi Friends University

09/2023 - Present Kenya

## STRENGTHS

### AI Model Development

Ability to integrate various technologies to create intelligent and user-centric applications.

### Full-stack Development

Strong debugging skills coupled with a thorough understanding of software development life cycle.

### Ethical System Design

Capable of designing ethically responsible AI solutions that prioritize user privacy and data protection.

## KEY ACHIEVEMENTS

### CropDoctor Implementation

Successfully developed a full-stack machine learning application that aids in predicting diseases, which can significantly improve agricultural practices.

### SugarCheckAI

Developed a Linear Regression Machine Learning model that does diabetes prediction based on some patient's health data metrics. In a real-world dataset the model achieved an accuracy of 98%.

### MNIST Handwritten Digit Recognition

Achieved high accuracy in a real-world dataset project, showcasing advanced machine learning skills and the capability to handle complex problems.

## LANGUAGES

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**English**  
Native

