Caldwell Kibe Wachira

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Education

Strathmore University	*Expected Graduation: June 2026*
Bachelor of Informatics and Computer Science	*Nairobi, Kenya*

- *GPA:* 3.67/4.0

Work Experience

Freelance Software Developer   *Jan 2023 – Present*

- Designed and developed 5+ mobile applications with **Flutter** and **Kotlin**, improving user engagement by **30%.**
- Created machine learning models to solve client-specific challenges, enhancing operational efficiency by **25%.**

Centre of Data Science and Artificial Intelligence(DSAIL)   *Jan 2025 – April 2025*
Data Science and AI Research Intern

- Built a sentiment analysis model using **BERT** for text classification, achieving an accuracy of **87%** on a test dataset of **10,000+ samples**.
- Developing an AI pipeline to analyze vegetation health, improving tree-planting location accuracy by **20%,** supporting reforestation efforts in degraded areas.

Projects

CVE Chatbot for Cybersecurity Awareness | *Demo* | *Source Code*
Technologies: *Python, Flask, JavaScript*
- Developed and deployed a chatbot that retrieves and **filters CVE (Common Vulnerabilities and Exposures)** data, reducing manual lookup time by **50%**
- Processed **100+** CVEs daily during testing, ensuring timely information delivery of actionable cybersecurity insights to users.
- Implemented **RESTful APIs** for efficient data filtering and retrieval, reducing query response time by **30%**.

Breast Cancer Detector | *Demo* | *Source Code*
Technologies: *Python, TensorFlow, Streamlit*
- Built a machine learning model using a **Convolutional Neural Network (CNN)** for binary classification of breast cancer cases based on medical imaging data.
- Achieved **86%** accuracy on the test dataset, optimizing performance with limited computational resources.
- Deployed the application on **Streamlit Cloud,** enabling easy access and reducing manual analysis time for radiologists by approximately **40%**.

Fare Payment System | *Demo* | *Source Code*
Technologies: *Dart, Flutter, Firebase, M-Pesa API*

- Developed a mobile application to streamline public transport payments, enabling seamless online ticket purchases and fare payments.
- Integrated **M-Pesa** for secure and efficient payment processing, reducing transaction time by **40%.**
- Implemented automated feedback systems for receipts, achieving **95%** real-time confirmation accuracy and reducing receipt delivery time by **70%**

Technical Skills

- **Languages:** Python, JavaScript, PHP, Dart, Kotlin, C++, SQL.
- **Frameworks:** Flutter, Flask, TensorFlow, Node.js, Streamlit.
- **Tools:** Git, Docker, Postman, Jupyter Notebook, Label Studio.
- **APIs:** M-Pesa API, RESTful APIs, FastAPI.
- **Cloud Platforms:** Firebase, Render, Streamlit Cloud.