

# SHEM KOOME

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<https://shem-koome.github.io/portfolio.github.io/>

## EDUCATION

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### Karatina University

Sep 2021 – June 2025

Bsc. Computer Science GPA: 3.6

## WORK EXPERIENCE

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### Agri-vision AI

*Full Stack Developer*

Karatina/Nairobi

Jan 2025 – May 2025

- Developed an AI agent to be used in the field of Agriculture.
- Deployed the AI agent into a Mobile Application for scalability, accessibility and usability.
- Participated in Origin Fest Hackathon held at DEKUT and attained a 2<sup>nd</sup> overall in the field of agriculture.

### Pesafy Africa

*Web Developer*

Kasarani, Nairobi

May 2024 – Sept 2024

- Helped in developing and maintaining the company's systems.
- Worked closely with the marketing team to ensure the company's services and products are being sold over the country.
- Helped with the customer support.

### Haki Solutions

*Graphics Designer*

Nairobi

Jan 2023 – Jan 2025

- Worked as the company's graphics designer.
- Worked closely with other devs on coming up with the company's system and maintaining it.
- I Managed the company's social media platforms.

## SKILLS

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### 1. Full Stack Developer

Proficient in designing and building web applications using;

- **Frontend:** HTML, CSS, JavaScript.
- **Backend:** PHP, Python (flask).
- **Database management:** MySQL, Firebase.

- **Core Concepts:** RESTful API integration, CRUD operations, MVC architecture.
- **Version Control & collaboration:** Git, GitHub.
- **Deployment Platforms:** Netlify, Vercel, Infinity Free, Hostinger.
- **Cloud Services:** Heroku, Google Cloud Platform (GCP).

## 2. Machine Learning & Artificial Intelligence

In-depth understanding and practical experience in ML/AI model development and deployment. Skilled in:

- **Core Concepts:** Data structures, Algorithms, Model evaluation and optimization.
- **Programming & tools:** Python, Jupyter Notebook, Google Colab
- **Libraries & Frameworks:** Pandas, NumPy, Matplotlib, Scikit-learn, Keras, TensorFlow
- **Deployment:** Streamlit, Heroku, Google Cloud, GitHub

## 3. Graphics Design

Creative and detail-oriented designer with hands-on skills in creating visual content for digital and print platforms. Skilled in:

- **Design tools:** Adobe Photoshop, Illustrator, Premier Pro, Canva
- **Design Work:** Branding, Logos Design, Posters, Social media content, Video editing.

## PROJECTS

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### Modern Car Wash management system (*PHP, JS, Hack, MySQL, Html, CSS*)

<https://github.com/Shem-koome/Sparkle-Wash> Modern Car Wash Management System is a smart, all-in-one solution designed to streamline car wash operations — from customer check-in to payment and service tracking. With real-time reporting, automated bookings, and inventory control, it brings speed, accuracy, and convenience to both customers and car wash owners. Whether it's managing staff, tracking sales, or analysing performance, this system puts the entire car wash in your hands.

### Mental Health Chatbot (*Python, Flask, Html, JS, CSS*)

<https://github.com/Shem-koome/mental-health-chatbot> The Mental Health Chatbot is an AI-powered companion designed to offer instant emotional support, self-care tips, and mental wellness resources. It engages users in safe, non-judgmental conversations, helping them manage stress, anxiety, and low moods anytime, anywhere. It's not a therapist — but a supportive first step toward better mental well-being.

## **Modern Filling station management system** *(PHP, JavaScript, Html CSS)*

<https://github.com/Shem-koome/Filling-station-management-system> A web-based management system tailored for daily operations of a petrol station. It includes separate dashboards for employees and administrators to handle fuel stock, sales, deposits, till money, debts, spares, expenses, and batch history. The system ensures efficiency, transparency, and batch-based tracking for all critical operations.

## **Agri-Vision AI** *(Dart, flutter, Flask, procfile, Heroku)*

<https://github.com/Shem-koome/agrivisionai> Agri-Vision AI is an intelligent predictive analytics platform that leverages machine learning to forecast crop yields with high accuracy. By integrating multi-source data — including weather trends, soil metrics, satellite imagery, and historical yield data — the system provides actionable insights to optimize resource allocation, reduce risk, and boost farm profitability. It's a scalable solution aimed at driving data-backed decisions in modern agriculture.

## **AWARDS**

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### **Best AI innovation in Agriculture at Origin Fest**      November 2024

Recognized for developing a highly creative AI agent that predicts crop yields based on environmental and historical data. The solution stood out for its innovation, scalability, and potential to transform agricultural decision-making through data-driven insights.

### **Cyber sentinel**      July 2022

Awarded a certificate by Cisco upon successful completion of the "Introduction to Cybersecurity" course. Gained foundational knowledge in cyber threats, security principles, network defence, and ethical responsibilities in the digital space.

[https://www.credly.com/badges/9e6059b5-dbbb-404e-9aba-14a0929d500e/public\\_url](https://www.credly.com/badges/9e6059b5-dbbb-404e-9aba-14a0929d500e/public_url)

## **REFEREES**

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1. Houston Kimura – CEO Haki Solutions, 0700923524
2. Dan Munene – Head of ICT Dept Pesafy Africa, 0716849963
3. Zablon Okari – Head Computer Science Karatina University, 0725242180