

Hillary Chagalla Onzere

Hillary on GitHub: <https://github.com/Chagallah>
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Nairobi, Kenya

SKILLS AND COMPETENCIES

- **Programming & Development:** Python, JavaScript, PHP, C/C++, HTML5, CSS3, Django REST Framework, RESTful APIs, Backend Integration, MySQL, MSSQL Server, MongoDB, Linux, Git, GitHub;
- **Engineering & Design:** AutoCAD, MATLAB, Proteus, Arduino, Raspberry Pi Programming, Circuit Design, Electrical Installation, IoT Communication, Sensor Integration;
- **Specialized Technologies:** Software Development, Cloud Computing(Microsoft Azure, Oracle), Embedded Systems, Blockchain Development, Machine Learning, Cybersecurity, Network Security;
- **Soft Skills:** Problem-Solving, Team Collaboration, Effective Communication, Ethical, Adaptable, Innovative;

PROFESSIONAL EXPERIENCE

Cyber Security and Unified Communications Graduate Trainee

Crystal Technologies

October 2025 –

Nairobi, Kenya

Electrical Engineer Intern

Central Electricals International Ltd

May 2024 – July 2024

Nairobi, Kenya

- Contributed to King's Orchid Project electrical installations and design analysis.
- Completed intensive AutoCAD training program focusing on electrical and architectural designs.
- Conducted electrical systems analysis and design interpretation at Rosslyn Hotel project.
- Gained practical experience in commercial electrical installation standards.

Software Developer Attaché

Kenya Medical Research Institute (KEMRI)

May 2023 – July 2023

Kisumu, Kenya

- Developed and maintained database systems for medical research data management.
- Built responsive web applications for data collection and analysis.
- Created comprehensive API documentation and performed system integration.
- Conducted fieldwork and prepared detailed technical reports on project deliverables.

Junior Electronic Engineer Attaché

Gearbox Europlacer

May 2022 – July 2022

Nairobi, Kenya

- Collaborated with Machine Learning team to develop facial recognition system for automated door access.
- Delivered technical presentation on Raspberry Pi applications and implementation strategies.
- Applied project management methodologies using Kanban and Trello for team coordination.
- Programmed embedded systems using Arduino and Raspberry Pi for hardware automation.

EDUCATION

Bachelor of Science in Electronic and Computer Engineering

Jomo Kenyatta University of Agriculture and Technology (JKUAT)

2020 – 2025

Juja, Kenya

Kenya Certificate of Secondary Education (KCSE)

Mang'u High School

2016 – 2019

Kiambu, Kenya

CERTIFICATIONS & PROFESSIONAL DEVELOPMENT

Practical Malware Analysis Certification, Udemy

June 2025

Information Security Certification, CS406 Saylor Academy

May 2025

GIT Version Control Certification, Udemy

April 2025

Cyber Security Certification, Udemy	March 2025
Management Skills Mastery, Udemy	March 2025
Networking Security Certification, Udemy	March 2025
Blockchain – NEAR Protocol Certified Developer, Sankore 2.0 Academy	Sept 2022
Digital Marketing Certificate, Udemy	July 2022
Python Prep Program, Lux Tech Academy East Africa	March 2022

PROJECTS

- Smart Car Parking System** | *Collaborative Project* [LINK](#) | [DEMO](#)
- Full-stack embedded system integrating hardware sensors, microcontroller programming, and web-based monitoring dashboard for automated parking management.
- Medical Data Collection Platform** | *Team Development* [LINK](#)
- Enterprise-grade web application built with Django REST API, MSSQL database backend, and responsive frontend using Vanilla JavaScript and PHP for healthcare data management.
- Blockchain Library Management System** | *Individual Project* [LINK](#) | [DEMO](#)
- Decentralized application leveraging blockchain technology to automate library services, user authentication, and resource tracking for multi-user environments.
- Intelligent Obstacle Avoidance Robot** | *Team Project* [LINK](#)
- Arduino-based autonomous navigation system using ultrasonic sensors and machine learning algorithms for real-time obstacle detection and path optimization.
- Smart Drainage Monitoring System** | *IoT Project* [LINK](#)
- Integrated hardware-software solution combining embedded sensors with web-based monitoring interface for automated drainage system management.

REFEREES

Kenn Kamau, Project Analyst, Sankore 2.0. Phone: +254 717 008 240 Email: kamaukenn11@gmail.com	Ian Kesohore Orege, Software Engineer, KEMRI-CGHR Phone: +254 706 950 127 Email: ian.keso@gmail.com
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