Mungai John Karanja
Software Developer

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SUMMARY

Junior Developer with a strong foundation in Python (Flask and Django) and JavaScript (React), complemented by proficiency in HTML, CSS and Tailwind CSS. Passionate about building dynamic, user-friendly web applications, and experienced in full system deployment and server management. Skilled in configuring and deploying applications using Apache, PM2, and .conf files on virtual machines (VMs). Proficient in setting up production environments and ensuring uptime and scalability. Adept at both front-end and back-end development, with a keen interest in continuous learning and professional growth.

SKILLS

- Programming Languages: Python, JavaScript
- Frontend Technologies: HTML, CSS, React
- Backend Technologies: Flask, Django, SQLAlchemy
- Databases: PostgreSQL, SQLite, SQL
- Deployment & Server Management: Apache, PM2, .conf setup, Virtual Machines (VMs)
- Version Control: Git, GitHub
- Testing & Debugging: pytest, Postman
- API Development: RESTful APIs, Fetch API
- Authentication & Security: Bcrypt, JWT
- Tools & Libraries: Flask-Migrate, Flask-CORS, Docker

PROJECTS

IReporter App - https://ireporter-ke.netlify.app/

Full Stack Developer | Flask, React, PostgreSQL,
The iReporter app is a powerful platform designed to enable citizens to report incidents of corruption and other societal issues. With a user-friendly interface, the app allows users to create reports, attach evidence through images and videos, and specify geolocations for accuracy. The app features both user and admin dashboards, where users can track the status of their reports, and admins can review and update the status of reported incidents. Built with a Flask API backend and a React frontend, iReporter ensures secure user authentication, robust data handling, and a seamless user experience across devices.

KGGA Membership & Payments System - https://voluble-kelpie-0d72d6.netlify.app/

Full Stack Developer | Flask, React, PostgreSQL, MPESA API
Built a role-based web platform for the Kenya Girl Guides Association to manage student memberships, payments, schools, and events across the country.
- Developed secure authentication and RBAC for administrators, finance, and guide leaders.
- Integrated MPESA STK Push for automated mobile payments and real-time payment tracking.
- Automated student transitions between age-based units using scheduled backend tasks.
- Designed interactive dashboards with filters and visual reports (Chart.js) for payments and demographics.
- Implemented CRUD operations, form validations, school/student linking, and exportable reports.

LRDP Data Tracking Dashboard – https://lrdp.onrender.com

Flask, Jinja Templates, Tailwind CSS, PostgreSQL, Service Workers, IndexedDB
Built a Progressive Web App for the Lake Region Development Program to digitize ECD program data tracking. The system supports full offline functionality with auto-sync, role-based access, real-time dashboards, and secure beneficiary management. Designed for low-connectivity environments using Flask on the backend and Jinja + Tailwind CSS on the frontend, with PostgreSQL for persistent data storage.

Chama Payment Management System (Web App + PWA) - https://chamap.onrender.com

React | Flask | SQLAlchemy | REST API | Formik | Service Workers
Developed a full-stack Progressive Web App for managing Chama (social savings group) finances. Key features include member registration, dual account tracking (welfare & investment), bulk payments, loan management, auto/manual penalties, real-time reporting, and offline access. Fully responsive with secure login and data export.

EXPERIENCE

IT Attaché | Machakos County Government(Tourism Department)
February 2023 - April 2023 | Machakos

Worked in the tourism department for four months, gaining valuable skills and experience. Provided technical support by troubleshooting software and hardware issues on computers and updating various software applications. Played a key role in maintaining the department's IT infrastructure, ensuring smooth and efficient operations.

Dispatch and IT Intern | Kutuma Kenya Limited
January 2022 – April 2022 | Nairobi

Assisted in rider management by monitoring timelines and ensuring efficient dispatch operations. Provided technical support to colleagues, troubleshooting and resolving computer-related issues to maintain smooth workflow and productivity

EDUCATION

Moringa School | Nairobi, Kenya
Software Engineering
February 2024 – August 2024

Machakos University (MKSU) | Machakos, Kenya
Bachelor of Science in Mathematics and Computer Science
2019 – 2023
- Second Class
- Major: Statistics

Githumu Boys High School | Murang'a, Kenya
Kenya Certificate of Secondary Education (KCSE)
2015 – 2018

REFEREES

Mercy Cherotich
 Kutuma Kenya Limited
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 Machakos County Government
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