

## **KENNEDY MWANZIA**

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## **PROFESSIONAL SUMMARY**

- ✧ A highly skilled and passionate Software Developer with expertise in full-stack web development, blockchain technology, and database management.
- ✧ Proficient in JavaScript (Node.js, Express.js), PHP (Laravel, MySQL), Solidity (Smart Contracts), and Python, with hands-on experience in developing and deploying scalable applications. Adept at Agile methodologies, version control (Git/GitHub), and cloud-based deployment strategies. Committed to continuous learning and delivering high-quality solutions to solve real-world problems.

## **EDUCATION**

**KCA University, Nairobi, Kenya**

**2021 – 2025**

### **Bachelor's Degree in Information Technology (BSc. IT)**

Key Modules Studied:

- ✧ Web Development & Internet Application Programming
- ✧ Database Management Systems (MySQL, SQL, Firebase)
- ✧ Software Engineering Principles & Agile Methodologies
- ✧ Object-Oriented Programming (Java, Python, C++)
- ✧ Cybersecurity & Information Security Management
- ✧ Blockchain Technology & Smart Contracts Development
- ✧ Networking & Cloud Computing

**Kangaru School, Embu, Kenya**

**2017 – 2020**

### **Kenya Certificate of Secondary Education (KCSE)**

- ✧ Successfully qualified to pursue a Bachelor's degree in Information Technology at KCA University.

**ACK Mwingi St. Paul's Neema Schools, Kitui, Kenya**

**2014 – 2016**

### **Kenya Certificate of Primary Education (KCPE)**

- ✧ Achieved 361 B+ marks in the KCPE national exam.

**Kwitu Academy, Kitui, Kenya**

**2007 – 2013**

- ✧ Completed primary education, developing a strong academic foundation.

## **TECHNICAL SKILLS**

### **Programming & Web Development**

- ✧ **Frontend:** HTML, CSS, JavaScript (ES6+), Bootstrap, Tailwind CSS
- ✧ **Backend:** PHP (Laravel), Node.js (Express.js)
- ✧ **Database Management:** MySQL, Firebase, SQL Optimization
- ✧ **Blockchain Development:** Solidity, Smart Contracts, Web3.js
- ✧ **Server & Hosting:** Apache (XAMPP), GitHub Pages, Vercel, AWS (Basics)
- ✧ **Version Control:** Git, GitHub

### **Software Development Methodologies**

- ✧ Agile Development & SCRUM – Practical implementation in projects
- ✧ Test-Driven Development (TDD) – Writing unit and integration tests

### **Cloud & Deployment Tools**

- ✧ CI/CD Pipelines – GitHub Actions, Docker (Basic)
- ✧ Hosting & Deployment: Render, GitHub Pages, Vercel, Fleek

## **PROJECT EXPERIENCE**

### **1. Five Senses Restaurant Management System (PHP, MySQL, JavaScript, HTML, CSS)**

- ✧ Developed a web-based restaurant management system for efficient order processing.
- ✧ Implemented secure user authentication and role-based access control.
- ✧ Integrated a responsive UI for enhanced user experience.

### **2. Payroll Management System (PHP, MySQL, JavaScript, HTML, CSS)**

- ✧ Designed and implemented a scalable payroll system for employee salary computation.
- ✧ Automated tax deductions and payslip generation.
- ✧ Optimized database performance to handle large datasets efficiently.

### **3. Blockchain-Based Voting System (Solidity, React, Web3.js, Fleek, MetaMask)**

- ✧ Developed a secure and transparent decentralized voting system using Ethereum blockchain.
- ✧ Integrated MetaMask authentication for voter identity verification.
- ✧ Deployed on Fleek with IPFS hosting for a decentralized web experience.

### **4. Portfolio Website (JavaScript, HTML, CSS, Node.js)**

- ✧ Created a modern portfolio website showcasing projects and technical expertise.
- ✧ Implemented dynamic project updates via a backend server.
- ✧ Deployed using GitHub Pages for accessibility.

### **5. JavaScript Mini-Projects (Express.js, JavaScript, HTML, CSS)**

- ✧ Developed interactive web applications, including to-do lists, weather apps, and real-time chat applications.
- ✧ Optimized code efficiency and performance using best practices.

## **WORK EXPERIENCE**

### **1. Freelance Software Developer (2022 – Present)**

**Location:** Remote / Nairobi, Kenya

**Technologies Used:** JavaScript (Node.js, Express.js), PHP (Laravel), HTML, CSS, MySQL, Firebase, Solidity, Web3.js, Git, GitHub, AWS, Vercel, Fleek

- ✧ As a freelance software developer, I have worked on a diverse range of projects, delivering custom web solutions, API integrations, database optimization, and blockchain applications. My work involves end-to-end development, from gathering requirements to deployment, ensuring high-performance and scalable applications.

#### **i. Custom Web & Software Development**

- ✧ Designed, developed, and deployed full-stack web applications for clients in industries such as finance, hospitality, e-commerce, education, and real estate.
- ✧ Engineered dynamic and responsive front-end interfaces using HTML, CSS, JavaScript, Bootstrap, and Tailwind CSS to enhance user experience and accessibility.
- ✧ Developed robust backend solutions using Node.js (Express.js) and PHP (Laravel), ensuring smooth data processing and secure system interactions.
- ✧ Built database-driven applications using MySQL and Firebase, implementing efficient query optimization techniques to improve response times.
- ✧ Created progressive web applications (PWAs) to enhance mobile accessibility and user engagement.

#### **ii. API Integration & Backend Architecture Optimization**

- ✧ Integrated third-party APIs, including payment gateways (PayPal, Mpesa), authentication systems (JWT, OAuth, Firebase Auth), and cloud-based storage solutions (AWS S3, Firebase Storage).
- ✧ Designed and deployed RESTful APIs to handle business logic and process large amounts of data efficiently.
- ✧ Implemented role-based access control (RBAC) and secure authentication mechanisms to ensure system security and compliance with best practices.
- ✧ Utilized server-side caching techniques (Redis, Memcached) to improve system performance by up to 50%.

#### **iii. Cloud Deployment & Security Enhancements**

- ✧ Assisted clients in deploying projects on cloud platforms, including GitHub Pages, Vercel, AWS, and Fleek for high availability and scalability.

- ✧ Secured applications against SQL injection, XSS, CSRF attacks, and other vulnerabilities by following OWASP security standards.
- ✧ Configured firewalls, SSL certificates, and access controls to protect web applications and ensure data security.
- ✧ Set up automated CI/CD pipelines using GitHub Actions and Docker, reducing deployment errors and improving software reliability.

#### **iv. Blockchain Development & Web3 Integration**

- ✧ Developed Ethereum-based decentralized applications (DApps) using Solidity, Web3.js, and MetaMask authentication.
- ✧ Designed and deployed smart contracts on the Ethereum blockchain for secure and transparent voting systems, digital wallets, and NFT marketplaces.
- ✧ Integrated IPFS (InterPlanetary File System) hosting solutions for decentralized storage and enhanced security.
- ✧ Implemented gas optimization techniques in smart contracts to reduce transaction costs.

#### **Project Highlights:**

##### **i. Payroll Management System (PHP, MySQL, JavaScript, HTML, CSS)**

- ✧ Designed a payroll system with automated tax calculations, deductions, and salary computation.
- ✧ Built payslip generation functionality for secure salary documentation.
- ✧ Optimized MySQL queries, improving database efficiency by 40%.

##### **ii. Voting System (Blockchain-Based) (Solidity, React, Web3.js, Fleek, MetaMask)**

- ✧ Developed a secure decentralized voting system on the Ethereum blockchain to prevent election fraud.
- ✧ Integrated MetaMask authentication for voter identity verification.
- ✧ Deployed on Fleek with IPFS hosting for decentralized web accessibility.

##### **iii. Real Estate Management System (PHP, Laravel, MySQL, JavaScript)**

- ✧ Built a real estate listing platform where users can buy, sell, and rent properties.
- ✧ Implemented automated property verification and payment processing.

##### **iv. Portfolio Website (JavaScript, HTML, CSS, Node.js)**

- ✧ Created a modern personal portfolio website to showcase my projects and technical expertise.
- ✧ Implemented real-time project updates using a backend server.

## **2. Software Development Intern (University Project Work) (April 2024 – July 2024)**

**Location:** KCA University, Kenya

**Technologies Used:** PHP (Laravel), JavaScript (React, Express.js), Solidity, Web3.js, MySQL, Git, Agile/SCRUM

- ✧ As part of my university coursework, I collaborated with a team of developers on real-world projects that involved full-stack development, system design, and blockchain integration.

### **i. Enterprise-Level Web Application Development**

- ✧ Contributed to the development of enterprise-level software solutions for academic and business applications.
- ✧ Designed scalable database architectures using MySQL, improving query efficiency and reducing load times.
- ✧ Created RESTful APIs to facilitate seamless data transfer between the frontend and backend.

### **ii. Code Reviews & Best Practices Implementation**

- ✧ Conducted peer code reviews, identifying and fixing security vulnerabilities, reducing error rates by 35%.
- ✧ Implemented clean coding standards using best practices like SOLID principles, MVC architecture, and DRY (Don't Repeat Yourself).
- ✧ Used Git and GitHub for version control, maintaining well-documented repositories and ensuring smooth collaboration.

### **iii. Real-World Deployment & Testing Strategies**

- ✧ Gained hands-on experience deploying applications on AWS, Vercel, and private university servers.
- ✧ Performed unit testing and integration testing using Jest and Mocha, ensuring system reliability.
- ✧ Implemented automated deployment pipelines, reducing manual errors and improving release cycles.

### **Key Takeaways from My Work Experience**

- ✧ **Full-Stack Development:** Expertise in front-end and back-end development with a strong focus on scalability and performance.
- ✧ **Blockchain Integration:** Hands-on experience with smart contracts, Web3, and decentralized applications.
- ✧ **Cloud Deployment & Security:** Proficient in deploying applications on AWS, Vercel, Fleek, and GitHub Pages.
- ✧ **Problem-Solving & Optimization:** Successfully optimized database queries, implemented security enhancements, and improved application performance.
- ✧ **Team Collaboration & Agile Practices:** Worked in SCRUM-based environments, conducted code reviews, and contributed to peer learning.

### **CERTIFICATIONS & TRAINING**

- ✧ Web Development & JavaScript Mastery (Self-Taught & University Courses)
- ✧ Blockchain Development (Solidity, Smart Contracts) (Self-Taught & Practical Experience)
- ✧ Database Management & SQL Optimization (Online Courses & Real-World Experience)
- ✧ Agile & SCRUM Methodologies (Practical Implementation in Projects)

### **SOFT SKILLS**

- ✧ Strong problem-solving and debugging skills

- ✧ Excellent communication and team collaboration abilities
- ✧ Fast learner, adaptable to new technologies
- ✧ Time management and ability to meet deadlines
- ✧ Attention to detail and commitment to writing clean, maintainable code

### **ACHIEVEMENTS**

- ✧ Developed and deployed multiple full-stack projects in PHP, JavaScript, and Solidity.
- ✧ Successfully contributed to open-source projects on GitHub.
- ✧ Built a secure blockchain-based voting system with MetaMask authentication.

### **HOBBIES & INTERESTS**

- ✧ Coding & Open-Source Development – Passionate about learning new programming languages and frameworks.
- ✧ Tech Blogs & Research – Keeping up with the latest trends in web development and blockchain technology.
- ✧ Fitness & Sports – Engaged in a 300 push-ups daily challenge and ab workouts.
- ✧ Gaming & Strategy – Playing strategic games to enhance problem-solving and analytical skills.

### **REFERENCES**

Available upon request.