

# VINCENT MARUGE KANG'ETHE

ICT Officer | Backend Developer | Network Administrator|DataBase administrator

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GitHub: <https://github.com/vincent8494>

Portfolio:<https://vincentmarugek.netlify.app/>

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## PROFILE

Self-driven and disciplined ICT professional with a strong academic background and hands-on experience in backend development, database administration, systems integration, and technical support. Proven ability to troubleshoot, customize, and optimize databases and applications in production environments. Committed to continuous learning, team collaboration, and delivering scalable, secure, and high-performance systems. Adept at aligning ICT solutions with institutional goals.

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## EXPERIENCE

**County Government of Machakos — ICT Officer (Attachee)** **Apr 2023 – Jul 2023**

- Participated in database performance tuning and report generation.
- Assisted in user requirement analysis for internal tools.
- Contributed to ICT system testing, support ticket resolutions, and issue tracking.
- Collaborated with IT team to implement updates in line with data integrity and security protocols.
- Helped streamline data workflows between systems through basic API integrations.

**Meganet Technologies — Network Administrator (Volunteer)** **Apr 2022 – Sep 2022**

- Configured and deployed LAN/WAN infrastructures across multiple client sites.
  - Delivered custom networking solutions, reducing downtime by 20%.
  - Provided backend support for small-scale systems including database setups using SQL Server and MySQL.
  - Conducted system diagnostics and implemented basic automation scripts for backups.
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## EDUCATION

Machakos University **Sep 2020 – Oct 2024**  
Bachelor of Science in Mathematics & Computer Science

Ngenia Boys High School **Jan 2016 – Nov 2019**

## PROJECT HIGHLIGHTS & ADDITIONAL EXPERIENCE

- **Inventory Management System:** Developed a backend module using ASP.NET Core and SQL Server to manage student inventory and allocation in a university setting. Designed RESTful APIs for CRUD operations, created secure authentication mechanisms, and implemented role-based access control. Integrated dynamic reporting dashboards for data analytics and generated complex queries for performance reports and stock tracking.
  - **System Integration Demo:** Built and deployed a RESTful API for student academic records using ASP.NET Core, integrating it with a simulated billing system via JSON payloads. Emphasized clean architecture principles, ensuring separation of concerns. Incorporated token-based authentication, robust error handling, and tested integrations with Postman and Swagger UI.
  - **ERP Familiarization (Oracle ERP):** Participated in practical Oracle ERP simulation labs covering modules such as Human Resource Management and Procurement. Gained hands-on experience navigating enterprise-level data flows, relational database schemas, business logic, and user workflows in a professional ERP environment.
  - **UNO Card Game:** Designed and built a real-time multiplayer UNO game using React (frontend), Node.js (backend), and Socket.IO (websockets). Handled game state synchronization, matchmaking, and in-game chat between users. Developed a responsive UI and ensured seamless gameplay experience across devices. Applied key concepts in concurrency, asynchronous communication, and client-server architecture. Link-<https://unocardgame-mt9d.onrender.com/>
  - **E-commerce Platform:** Created a full-stack e-commerce web app using React, Node.js, and MongoDB. Built user authentication (JWT), product management, shopping cart, checkout system, and order tracking. Designed both customer and admin panels with responsive design. Integrated backend APIs with frontend using Axios and maintained secure data flow between client and server. Link-<https://onlinestore-tau.vercel.app/>
  - **Traditional Clothing Website:** Developed a culturally inspired online clothing store to showcase and sell traditional wear from various communities. Used HTML5, CSS3, JavaScript, and React to build the UI. Implemented product filtering, image carousels, and dynamic content loading. Ensured mobile responsiveness and designed for accessibility and global audience appeal. Link-<https://traditional-clothesite.vercel.app/>
  - **Login Page Demo:** Created a sleek, mobile-first login interface with HTML, CSS, and JavaScript. Integrated real-time form validation, smooth animations, and responsive layout using Flexbox and media queries. Focused on usability, clear error messaging, and modern UI aesthetics. Link-<https://loginpagedemo.vercel.app/>
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## TECHNICAL SKILLS

- **Programming Languages:** Proficient in C#, Python, JavaScript, and PHP. Comfortable with object-oriented and functional programming approaches. Able to write clean, maintainable, and well-documented code.
- **Backend Development:** Hands-on experience building scalable, secure RESTful APIs using ASP.NET Core and Node.js. Developed complex logic, implemented authentication and authorization systems (e.g., JWT), and designed modular service architectures.
- **Frontend Development:** Skilled in modern frontend technologies including React, HTML5, CSS3, and JavaScript. Capable of building responsive UIs, integrating APIs, and enhancing user experience with animations and interactivity.

- **Databases:**Strong knowledge of relational and non-relational databases such as SQL Server, MySQL, MariaDB, PostgreSQL, SQLite, and MongoDB. Familiar with schema design, normalization, and advanced querying techniques.
- **Database Optimization & Indexing:**Experienced in writing efficient SQL queries, designing indexes, and tuning database performance. Skilled in using views, stored procedures, and functions to improve application speed and maintainability.
- **API Integration:**Well-versed in consuming and integrating RESTful and SOAP APIs. Comfortable using tools like Postman and documenting endpoints with Swagger/OpenAPI.
- **Systems Analysis & Requirements Mapping:**Able to translate business and user requirements into functional technical specifications. Skilled in use-case design, workflow mapping, and wireframing.
- **Software Testing & QA Documentation:**Knowledgeable in unit testing, integration testing, and creating QA documentation. Familiar with test-driven development (TDD) and bug tracking workflows.
- **Troubleshooting & Bug Resolution:**Capable of debugging applications at various layers (UI, logic, database), resolving runtime issues, and conducting root cause analysis effectively.
- **Report Design & Data Analytics:**Competent in designing analytical reports, dashboards, and custom SQL-based summaries. Able to extract actionable insights from data and visualize them appropriately.
- **Secure Coding Practices & Audit Compliance:**Applies secure coding standards to avoid vulnerabilities such as SQL injection, XSS, and CSRF. Aware of general compliance requirements in systems handling sensitive data.
- **DevOps & CI/CD:**Experience with version control via Git/GitHub, CI/CD pipelines using GitHub Actions, and basic deployment automation strategies. Able to set up test environments and manage release cycles.
- **Tools & Technologies:**Proficient in tools such as Visual Studio, Git, GitHub, Postman, Swagger, IIS, Apache, and Tomcat. Skilled in debugging and deploying across different platforms.
- **Operating Systems & Networking:**Familiar with using Windows, Linux, and Unix at user and administrative levels. Capable of setting up basic LAN/WAN infrastructures, diagnosing network issues, and ensuring connectivity.
- **ERP Systems:**Practical exposure to Oracle ERP systems through university simulations, particularly in HR and Procurement modules. Gained understanding of enterprise resource flows and ERP database interactions.

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## CORE COMPETENCIES

- **Backend Development & API Integration:**Expertise in designing and building secure, efficient server-side applications using ASP.NET Core and Node.js. Skilled in RESTful API development and consumption, enabling smooth data flow between client and server systems.
- **Database Management & Optimization:**Strong command of SQL and database systems such as SQL Server, MySQL, and PostgreSQL. Able to model complex data relationships, optimize query performance, create stored procedures, and maintain data integrity.
- **Systems Analysis & Design:**Proficient in gathering user requirements, performing gap analysis, and translating business needs into technical specifications. Familiar with UML diagrams, ER modeling, and wireframe tools to support system design.

- **Software Testing & Quality Assurance:** Experienced in writing test cases, performing functional and integration tests, and using tools like Postman for API validation. Understands the importance of QA in preventing defects and maintaining system reliability.
  - **Troubleshooting & Debugging:** Strong analytical skills for identifying, isolating, and resolving system bugs and bottlenecks. Comfortable working through logs, debugging tools, and application layers to ensure uptime and stability.
  - **Secure Coding & Compliance:** Understands fundamental application security practices. Applies validation, sanitization, and role-based access control to prevent vulnerabilities and ensure data confidentiality and integrity.
  - **Collaboration & Team Communication:** Able to work cross-functionally with designers, developers, and stakeholders to deliver projects on time. Communicates effectively, documents technical processes clearly, and supports teammates during deployments and reviews.
  - **Version Control & DevOps Fundamentals:** Familiar with versioning best practices using Git and GitHub. Basic knowledge of CI/CD tools such as GitHub Actions and scripting for automated deployments.
  - **Client Support & Technical Documentation:** Experienced in end-user support and writing user manuals, setup guides, and deployment documentation. Capable of translating technical jargon into user-friendly instructions.
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## **CERTIFICATIONS**

- Python for Data Science and AI Development – IBM
  - Foundations: Data, Data everywhere – Google
  - Technical Support Fundamentals – Google
  - Being a Software Developer – Atingi
  - Digital Safety and Security – Atingi
  - Machine Learning Problem Framing – Atingi
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## **LANGUAGES**

- English: Fluent
  - Kiswahili: Fluent
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## **REFEREES**

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