Willis Ivali

Software Engineer

+254-702-52-44-33
itsivali@gmail.com
https://github.com/itsivali

SUMMARY

As a results-oriented software developer with six years of expertise, I focus on developing backend REST APIs. I am proficient in creating scalable and high-performing APIs using Node.js and the C# programming language. I have a solid understanding of using Google Cloud services, such as SQL Server and Google Firebase, to create and build reliable database structures.

My skills extend to creating RESTful APIs, implementing authorization and authentication systems, and optimizing API performance for seamless front-end application integration. I possess strong knowledge of data modeling, API design patterns, security considerations, and backend architectural best practices.

Additionally, I am well-versed in DevOps practices and principles, utilizing pipelines for continuous delivery and integration to enhance software development processes. I am capable of containerizing and orchestrating applications using tools like Kubernetes and Docker, and I am familiar with using services like Google Kubernetes Engine (GKE) for cloud deployment and administration. My knowledge of Agile processes allows me to work collaboratively with cross-functional teams to produce high-quality software solutions. I excel at deconstructing complex issues, providing technical advice, and completing tasks.

I am dedicated to lifelong learning, staying updated with market developments, and exploring new technologies to drive innovation. My strong teamwork and communication abilities enable me to engage productively with stakeholders at all levels.

To deliver scalable and efficient software solutions, I bring a firm foundation in backend REST API development, expertise in C#, Laravel, JavaScript, and Dart, as well as experience with cloud computing services and databases like Google Firebase and SQL Server. I also have a thorough understanding of DevOps and Agile concepts.

SKILLS

MySQL, Javascript, Flutter, Firebase, Laravel SQL Server, Query Optimization, API Development REST API, Google Cloud, Microsoft Azure Git, Application Security, Application Scalability and Server Load Balancing, Application Deployment using Docker, Infrastructure Management using Terraform and, Linux Server Administration, Network Administration, and Automation.

EXPERIENCE

Kizimani NGO — *Webmaster*

JANUARY 2022 - PRESENT

- Analyzing Website Needs
  I possess a keen eye for understanding organizational requirements and aligning them with website objectives to deliver an effective online presence.
- Server Maintenance and Optimization
  Proficient in maintaining, updating, and optimizing servers to ensure website reliability and seamless performance.
- Performance Monitoring and Analysis
  Utilizing analytical tools, I regularly monitor website performance, extract valuable insights, and make data-driven decisions to enhance user experience.
- Content Management and SEO
  Proactively updating website content to keep it current and engaging while implementing SEO strategies to improve search engine rankings and increase organic traffic.
- Website Security
  I prioritize website security, implementing robust measures, and conducting regular audits to protect against potential threats and cyber-attacks.
- User Support and Training
  Skilled in providing user support and training to ensure smooth website utilization by the organization's staff.
- Web Technology Upgrades
  Stay updated with the latest web technologies and trends, making informed recommendations for website improvements and upgrades.

United Nations Environment Program — Software Engineer

- Developed Ardhisasa. This advanced web-based information system incorporates Active Directory integration for seamless employee sign-in through biometrics, ensuring secure and efficient authentication via two-factor authentication (2FA). This innovative system effectively manages and maintains comprehensive land records for the Ministry of Lands, guaranteeing enhanced security and streamlined employee access. The information system boasts a client-facing side, enabling seamless interactions between members of the public and the system. Users can access various features, including a powerful search functionality to retrieve land records. The system also incorporates a secure login feature, ensuring authorized access to sensitive data.
- Contributed to developing a significant United Nations website and a corresponding mobile application, designed specifically to retrieve data from it. Based on the Drupal platform, the website was developed for the UN Ozone Secretariat under UNEP (United Nations Environment Programme).

Microsoft — Software Engineer

JUNE 2017 - DECEMBER 2018

- Developed a cutting-edge API, utilizing the power of Kaizala - a Microsoft productivity platform designed for mobile collaboration and communication. This innovative API is seamlessly integrated with Dynamics 365, enhancing data collaboration and streamlining workflows for improved efficiency and productivity.
- Leveraged Azure Cognitive Services to craft a powerful API, providing advanced data analysis and interpretation capabilities, thereby enabling intelligent decision-making processes within Dynamics 365.
- Successfully employed agile methodologies throughout the development process, ensuring rapid iterations, continuous feedback, and adaptability to changing requirements, resulting in efficient and value-driven outcomes.
- Led the implementation of an efficient online ticketing system for Mawingu Networks, synchronized harmoniously with Dynamics 365, optimizing ticket management and improving customer service.
- Utilized Azure Functions to engineer web APIs, ensuring scalable and cost-effective resource allocation, enhancing performance and flexibility for data retrieval and management tasks.

EDUCATION

Middlesex University — BSc. Degree in Information Technology

(Major: Software Engineering)

JANUARY 2015 - SEPTEMBER 2016

RELEVANT COURSEWORK

Software Development, Object-Oriented Programming, Algorithms and Data Structures, Database Management, Web Development, Software Testing and Quality Assurance.

NCC Education — Advanced Diploma in Computing

JANUARY 2014 - DECEMBER 2014

RELEVANT COURSEWORK

Project Management, Enterprise Systems Development, Advanced Programming Techniques, Web Application Development, Computer Networks and Security, Object-Oriented Analysis and Design, Data Structures and Algorithms, Cloud Computing, and Virtualization.

NCC Education — Diploma in Computing

JANUARY 2013 - SEPTEMBER 2013

RELEVANT COURSEWORK

Systems Analysis and Design, Network Fundamentals, Database Design and Management, Software Engineering Principles, Operating Systems, Cybersecurity, and Ethical Hacking, Mobile App Development, and Cloud Computing.

Multimedia University — Cisco Certified Network Associate (CCNA)

OCTOBER 2009 - APRIL 2010

RELEVANT COURSEWORK

- Networking Fundamentals: Introduction to networking concepts, OSI model, TCP/IP protocol suite, IP addressing, and subnetting.
- Routing and Switching Essentials: Basic routing and switching concepts, router and switch configuration, VLANs, routing protocols (such as OSPF and EIGRP), and access control lists (ACLs).
- Scaling Networks: Advanced switching and routing topics, VLAN trunking,

spanning tree protocol (STP), WAN concepts, and Network Address Translation (NAT).

- Connecting Networks: Wide area network (WAN) technologies like PPP, HDLC, Frame Relay, and Virtual Private Networks (VPNs). Introduction to network security and network troubleshooting.
- Network Automation and Programmability: Introduction to network automation, software-defined networking (SDN), network programmability using APIs (such as REST APIs), and network monitoring and management tools.

TechnoBrain — CompTIA Network+

FEBRUARY 2009 - MARCH 2009

RELEVANT COURSEWORK

- Networking Concepts: Introduction to networking principles, network models (such as OSI and TCP/IP), protocols, and addressing schemes.
- Infrastructure: Understanding network components, cabling types, network devices (routers, switches, access points), and virtualization technologies.
- Network Operations: Managing and troubleshooting networks, network security concepts, network monitoring, and performance optimization.
- Network Security: Implementing security measures, securing network devices, wireless security, and common network vulnerabilities and attacks.
- Network Troubleshooting and Tools: Troubleshooting network issues, using network diagnostic tools, and understanding common network problems.
- Network Architectures: Understanding different network architectures, such as client-server, peer-to-peer, cloud-based, and virtualized networks.
- Wireless Networking: Configuring and securing wireless networks, wireless standards, and troubleshooting wireless connectivity issues.
- Network Administration: Network configuration and management, IP addressing, subnetting, routing, and network services (DNS, DHCP).

PROJECTS

Land Records Management System with Azure AD Integration (Web-Based Information System) — For the Ministry of Lands

- Developed a web-based land records management system connected to Azure Active Directory (AAD) for user authentication and access control.
- Implemented a robust and scalable database to store land-related information, including property ownership details, boundaries, legal documents, and transaction history.
- Integrated document management functionality for uploading, organizing, and retrieving land-related documents, ensuring easy access and retrieval.
- Designed intuitive interfaces for staff members to create, update, and maintain land records, ensuring accurate and consistent data entry.
- Implemented powerful search and reporting capabilities for quick access to specific land records and generating customized reports.
- Integrated workflow and collaboration features to streamline task management and ensure timely completion.
- Integrated a Geographical Information System for a visual representation of land records on interactive maps, enabling geospatial analysis and queries.
- Implemented robust security measures, role-based access control, and audit logging to protect data integrity and ensure compliance.
- Increased productivity and improved land administration processes through the streamlined management of land-related information.

This summary highlights the key aspects of the project, emphasizing the development of a web-based land records management system connected to Azure Active Directory for user authentication and access control. It briefly mentions the key features and benefits of the system, showcasing my expertise in implementing a comprehensive information system.

Online Ticketing System with Microsoft Dynamics Integration and Mobile Application Extension — For Mawingu Networks

- Designed and developed an online ticketing system integrated with Microsoft Dynamics for efficient ticket management and tracking.
- Implemented seamless synchronization of ticket data with other business processes, ensuring a unified view of customer interactions

and enhanced customer relationship management.

- Automated ticket assignment and routing based on predefined rules, optimizing efficiency and ensuring timely resolution.
- I Implemented real-time status tracking and escalation alerts to keep stakeholders informed and ensure prompt action.
- Developed a knowledge base and self-service options to empower users with independent problem-solving capabilities, reducing ticket volume and improving customer satisfaction.
- Utilized robust reporting and analytics capabilities to monitor ticket metrics, identify trends, and drive process improvements.
- Extended the ticketing system's reach by developing a mobile application with Microsoft Kaizala integration, enabling users to raise tickets, receive updates, and interact with support agents directly from their smartphones.
- Streamlined ticketing processes, improved customer support, and increased operational efficiency through the successful implementation of the online ticketing system, Microsoft Dynamics integration, and mobile application extension.

This summary highlights the key aspects of the project, emphasizing the development of an online ticketing system integrated with Microsoft Dynamics and extended through a mobile application with Microsoft Kaizala integration. It showcases my expertise in designing and implementing an end-to-end ticket management solution, delivering enhanced customer support and operational efficiency.

Drupal Website Development Project — For Ozone Secretariat at the United Nations Environment Program (UNEP)

- Led the development of a Drupal-based website for the United Nations Environment Programme (UNEP), delivering a dynamic and scalable online platform to support UNEP's mission and initiatives.
- Successfully customized the website design, aligning it with UNEP's branding and requirements, and ensuring a visually appealing and user-friendly interface.
- Implemented Drupal's robust content management system, enabling easy creation, editing, and publishing of website content by non-technical users within the UNEP team.
- Developed custom modules tailored to UNEP's specific needs, enhancing website functionality with advanced forms, customized search capabilities, and seamless integration with external APIs.
- Created and customized a Drupal theme to maintain consistency with UNEP's visual identity and ensure a responsive design across various devices.
- Implemented Drupal SEO best practices to optimize the website for search engines, improving UNEP's online visibility and impact.

- Employed performance optimization techniques, including caching image optimization, and code minification, to enhance website loading speed and ensure optimal performance.
- Ensured secure access to the website's backend through user authentication and access control features, maintaining data privacy and enforcing proper content management practices.
- Designed the Drupal website with scalability in mind, allowing for future growth and expansion to accommodate UNEP's evolving needs.
- Provided ongoing maintenance and support, ensuring the website's optimal performance, security, and continuous alignment with UNEP's goals and requirements

By successfully executing the Drupal website development project for UNEP, I showcased my expertise in Drupal CMS, custom module development, website theming, integration with third-party systems, SEO optimization, and performance optimization. This project demonstrated my ability to deliver innovative solutions aligned with the objectives of a globally renowned organization like the UNEP.

WordPress Website and Mobile App Development — *For OpenTable*
- Lead the development of a WordPress website and accompanying mobile applications for Open Table, a leading company in the restaurant industry.
- Designed and developed a responsive WordPress website that showcased Open Table's brand identity and provided an intuitive user experience for customers to discover and book restaurant reservations.
- Implemented custom WordPress themes and plugins to enhance the website's functionality, including advanced search and filtering options, integration with Open Table's reservation system, and seamless user registration and login features.
- Developed a secure and user-friendly content management system within WordPress, allowing Open Table's staff to easily update and manage restaurant listings, menus, and other relevant information.
- Ensured the website's compatibility across different devices and screen sizes, offering a consistent and optimized experience for desktop, tablet, and mobile users.
- Concurrently, created mobile applications for iOS and Android platforms, leveraging cross-platform development frameworks like Flutter to ensure code reusability and efficient development.
- Designed and implemented intuitive user interfaces for mobile applications, providing seamless access to restaurant listings, reservation management, and personalized user profiles.
- Integrated the mobile applications with Open Table's API and backend systems, enabling real-time synchronization of reservation data and user preferences across platforms.
- Deployed the mobile applications to their respective app stores (Apple App Store and Google Play Store), ensuring broad accessibility and

reach for Open Table's customer base.

- Conducted thorough testing and quality assurance procedures to ensure the website and mobile applications performed optimally, were user-friendly, and adhered to Open Table's brand guidelines.
- Provided ongoing support and maintenance, addressing any issues, implementing updates, and continuously improving the website and mobile applications in response to user feedback and changing requirements.

This WordPress website and mobile app development project for Open Table demonstrated my expertise in designing and developing user-centric and feature-rich solutions. By successfully delivering a responsive website and mobile applications, I showcased my proficiency in WordPress development, cross-platform mobile app development, API integration, and app store deployment. Additionally, my commitment to ongoing support and continuous improvement ensured Open Table's digital presence remained robust and aligned with industry standards.

REFERENCES

Nicodemus Makau

Director, Kizimani NGO

nick_makau@yahoo.com

+254-722-311-527

Toya Karisa

Helpdesk Technician, UNEP

nikarisa41@gmail.com

+254-717-020-717

Serah Kirega

Director, National Accounts at Global Cynergies, LLC

kiregawan@gmail.com

+254-722-760-877