Sandra Wagwa

Experienced Full Stack Engineer

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🌐 https://sandra-wagwa-porfolio.netlify.app/

Summary

A results-driven Full-Stack Developer with 3+ years of experience crafting fast, reliable, and scalable web solutions. I specialize in building dynamic front-end interfaces with React.js and Vue 3, and robust back-end systems using Node.js, TypeScript, Python (Django), and PHP (Laravel 11). My expertise spans API design, database optimization (MySQL, PostgreSQL, MongoDB, Microsoft SQL), and deploying applications on AWS, Azure, and Linux servers. I'm passionate about clean, secure coding practices, system performance tuning, and creating smooth, intuitive user experiences. Skilled in Agile development, CI/CD automation, and DevOps operations, I thrive in collaborative, fast-paced environments.

Profiles

Github
SandyWagwa

Linkedin
sandra-wagwa

Experience

Ministry of Lands, Public Works, Housing, and Urban Development   Upperhill, Nairobi
Software Engineer   May 2025-September-2025

- Developed scalable, maintainable backend services using Node.js & TypeScript, ensuring clean and efficient code.
- Designed and optimized NoSQL databases with MongoDB & Mongoose for high availability and fast query performance.
- Built RESTful APIs, middleware, and authentication layers using Express.js for seamless client-server communication.
- Implemented caching strategies with Redis to improve response times and reduce database load. Integrated message queuing with RabbitMQ / Kafka for event-driven architecture and real-time processing.
- Deployed and managed cloud-based services using AWS (S3, Lambda, EC2) for scalable infrastructure.

https://www.president.go.ke/ministries-ke/ministry-of-lands-public-works-housing-and-urban-development/

Kenya National Library Services (KNLS)   Uppehill, Nairobi
ICT Officer   April 2024-September 2024

- Gained hands-on experience in developing and maintaining secure backend systems,focusing on Node.js for various support and development tasks.
- Developed troubleshooting and user support skills for ICT services.
- Assisted with API design and integration for efficient data exchange and

  communication between different systems.
- Gained expertise in helpdesk support, computer network support, and both hardware and software support.
- Supported data entry, programming, and technical support for the fibre backbone link to the county.
- Contributed to the installation and configuration of IP phones and participated in general ICT administrative tasks.
- Demonstrated strong teamwork, adaptability, and reliability, while also being able to work independently with minimal supervision.

https://www.knls.ac.ke/

The Jitu   Nyeri, Kenya
Software Engineer Intern   January 2023-August 2023

- Gained practical experience in web development technologies such as HTML, CSS, JavaScript, ReactJS, NodeJS, and ExpressJS.
- Worked with Microsoft SQL Server and Azure Cloud Platform, gaining exposure to database management and cloud infrastructure.
- Collaborated on team projects, where I contributed to front-end development using ReactJS and helped build back-end services with NodeJS and ExpressJS.
- Utilized Redux Toolkit for state management and Docker for containerization of applications.
- Enhanced teamwork and project management skills while improving communication and time management through various assignments.

https://jitustaffing.com/

ICT Authority   Nairobi, Kenya
Software Engineer   January 2021-July 2022

- Acquired practical experience in building and maintaining secure backend systems, primarily using Node.js, handling diverse development and support tasks.
- Strengthened troubleshooting and end-user support skills within ICT services.
- Assisted in designing and integrating APIs to enable smooth data exchange and communication across systems.
- Developed proficiency in helpdesk operations, network support, and both hardware and software maintenance.
- Provided support for data entry, programming, and technical operations for the county's fibre backbone infrastructure.
- Participated in IP phone installation and configuration, alongside general ICT administrative duties.
- Exhibited strong collaboration, adaptability, and reliability, while also excelling in independent work with minimal supervision.

https://www.linkedin.com/company/kenya-ict-board/

Education

Kirinyaga University   Bachelor's Degree • Second Class Honours, Upper Division
Bsc Software Engineering

Built a strong foundation in software development, system architecture, and analytical problem-solving. Gained hands-on experience applying software engineering principles through collaborative projects and practical initiatives.

https://www.kyu.ac.ke/

Skills

Frontent Development
Proficient in JavaScript, React.js, Next.js, Redux, TypeScript, Vue.js, and Blade (Laravel templates). Skilled in responsive and modern UI design using Tailwind CSS and Bootstrap.
● ● ● ● ●

Backend Development
Experienced with Node.js, Python (Django), PHP (Laravel 11), Express.js, and NestJS. Strong in building RESTful APIs and GraphQL endpoints for efficient data handling.
● ● ● ● ●

Databases
Hands-on with MySQL, PostgreSQL, MongoDB, and Microsoft SQL. Skilled in query optimization, schema design, and database scaling strategies.
● ● ● ● ●

DevOps & Development

Competent in Linux server management, cloud deployment, CI/CD pipelines with GitHub Actions, and containerization using Docker.

● ● ● ● ●

UI/UX Development

Experienced in designing user interfaces anduser experiences, focusing on creating intuitive, accessible, and visually appealing applications.

● ● ● ● ○

Interests

Swimming

Volunteering

Community Work

Hikes and Adventures

Certifications

Developing Back-End Apps with Node.js and Express   May 2025

IBM

Developing back-end applications with Node.js and Express involves building server-side systems that handle data, user requests, and APIs efficiently. Node.js provides a scalable runtime, while Express offers a flexible framework for routing, middleware, and RESTful services, enabling developers to create robust, high-performance web applications and services.

https://coursera.org/verify/VJG1SJXZS4G8

Languages

English

● ● ● ● ●

Kiswahili

● ● ● ● ●