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# David Muchoki Ndungu

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## Professional Summary

Knowledgeable and skilled software development professional offering advanced abilities in wide range of programming languages, including Kotlin, Typescript, C++, TailwindCSS, Python NoSQL and SQL Language. Quickly understands requirements for new systems and creates robust code. Familiar with testing, debugging and correcting problems found in existing software systems.

## Work Experience

**IOS And Android Developer, 09/2025 to present**

**Graffins Dawa**

- **Developed and deployed a scalable backend on Microsoft Azure**, leveraging **Express.js**, **TypeScript**, and **PostgreSQL** to deliver high-performance and secure API services.
- **Contributed to a Kotlin Multiplatform Mobile (KMM) application**, building modern, responsive interfaces using **Jetpack Compose Multiplatform**, and implementing **SQL Delight-based local caching**, **offline-first capabilities**, and **automatic background data synchronization** to improve reliability and user experience
- **Collaborated with cross-functional teams** to improve application reliability, optimize API response times, and ensure smooth integration between the frontend and mobile clients.

**Assistant Software Developer, 05/2024 to 09/2024**

**Centre For International Programs (ICAP)**

Company Overview: ICAP is a global health organization affiliated with Colombia University, Dedicated to improving the health of families and communities worldwide

- Contributed to the development of SHIELD (Surveillance Health Information Exchange and Linkage Data) backend (API) using Elixir, PostgreSQL database, <https://shield.health.go.ke/home>
- Built and launched the official website for Icap Kenya, enhancing its digital presence <https://icapkenya.org/>
- Conducted data entry for Event-Based Surveillance (EBS) using REDCap, ensuring accurate and efficient data handling

- Created a SHIELD demo using JavaScript, Nodejs, Ejs (Embedded JavaScript templates), NEONDB-PostgreSQL database, HTML5, Tailwind CSS ensuring a responsive and user-friendly design and secure-<https://shield-demo.onrender.com>
- Created a forum API that allows a user to be able to post a blog, be able to sign in and get authenticated, has a bar chart which displays information
- Built a helpdesk API allowing facility user to post an issue and is given a unique id and the data is saved in PostgreSQL database

**Software Developer Intern, 10/2023 to 04/2024**

**Centre For International Programs (ICAP)**

- Conducted data entry of antimicrobial usage by patients in hospital using Redcap
- Utilized Python programming language, Panda's python library, and MySQL database for data analysis tasks
- Developed a health software demo using PHP, HTML, JavaScript, CSS, and MySQL database
- Website hosting using Oracle VM and NGINX on Ubuntu Operating System
- Created data API demo (Application Programming Interfaces) containing customers and invoices
- Documented Informatics department meetings including Surveillance and Health Information Exchange and Linkage of Data (S.H.I.E.L.D) meeting and A.D.A.M(All Disease Outbreak Module) meeting
- Used docker for containerization, streamlining the deployment process and ensuring consistent environments across development, testing and production

**Attachment Student (Under the ICT department), 07/2023 to 09/2023**

**Kenyatta University Teaching Referral and Research Hospital (KUTRRH)**

Company Overview: It is a National Referral Hospital with a 650-bed capacity

- Conducted networking tasks such as crimping ethernet cables from servers to endpoints
- Completed data entry tasks using Excel and REDCAP for tracking antimicrobial usage, diseases, and cultures
- Provided maintenance and support of hardware and software systems
- Network administration and troubleshooting
- Assisted in web development using WordPress, including customization of website pages

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**Education**

**Diploma:** Computer Science, September 2020-November 2023  
**ZETECH UNIVERSITY**

**Certificate:** AI in Software Engineering, June 2025-December 2025  
**Power Learn Project**

**Kenya Certificate of Secondary Education:** 2020  
**Molo Academy**

**Kenya Certificate of Primary Education:** 2016  
**Bahati UpperHill Academy**

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## Skills

- **Programming Languages:** C++, Kotlin, Typescript, JavaScript, Elixir, Python , HTML5, CSS, Tailwind CSS
- **Frameworks and Libraries:** Crow, Nextjs, Kotlin Multiplatform, Express.js, EJS, Ash framework, Phoenix framework, Flask
- **Database Management:** PostgreSQL, Appwrite, Cloud Firestore, MongoDB
- **Tools and Platforms:** Docker, NGINX, Oracle VM, Render, Git, Firebase, Neon DB, Appwrite, Vercel, Firebase Messaging, Stripe and Mpesa Integrations, Google Cloud Platform, Langchain JS, DataStax
- **Content Management Systems:** WordPress
- **Testing and Monitoring:** Jest- React Testing Library, Prometheus
- **Development Skills:** Mobile development, AI Development, API development (RestFul and WebSocket API), Web development and design, and server management

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## Certifications

Certificate of service  
CCNA certificates

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## Website, Portfolio And Profiles

<https://github.com/muchoki769>

<https://portfolio-three-mu-22.vercel.app/>

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## References

- Eric Ejimba, Data Engineer ICAP, ejimba@gmail.com, +254 725966650
- Brian Kariuki, Software Developer at ICAP, bk2936@cumc.colombia.edu, +254 729948411
- Doris Naitore, Country Representative at ICAP, dno2104@cumc.columbia.edu