

DAVID KARIUKI KAMAU

SOFTWARE ENGINEER

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PERSONAL STATEMENT

I am driven by the pursuit of crafting innovative solutions to complex business challenges. With substantial professional experience, I have developed expertise in diverse software and security technologies and frameworks. This breadth of knowledge allows me to seamlessly integrate into teams, demonstrating adaptability and versatility. I am committed to consistently delivering excellent results within demanding timeframes, emphasizing both quality and timeliness.

TECHNICAL PROFILE

- Backend: Java Springboot, PHP.
- Mobile: Native Android, Kotlin, Apache Cordova.
- Databases: MongoDB, Postgres, MySQL, CockroachDB, SingleStore, SQLite.
- Testing: Unit, Integration, System, functional, acceptance, smoke, regression, performance, security, and User Acceptance Testing.
- Version control: Git, Github, Gitlab, GOGS.
- Collaboration: Jira, Slack, Clickup.
- Documentation: Confluence, ReadTheDocs, Swagger, Javadocs.
- DevOps, CI/CD: AWS, Jenkins and Ansible.
- UI/UX Design: Adobe XD, Figma.
- Information security, Networking fundamentals.

COMPETENCIES

- Excellent communication skills and problem-solving skills.
- Collaborative team player with coaching and mentoring experience.
- Adherence to policy and software architecture best practices.
- In-depth understanding of DevOps and Quality Engineering.
- Proficient in Agile methodologies, prioritizing adaptability, collaboration, and iterative development.
- Active contributor to open-source projects, fostering community-driven development.

PROFESSIONAL EXPERIENCE

1. SOFTWARE ENGINEER AT SAFARICOM PLC, 08/2023 to Present

- Working with peer developers from Safaricom and other Vodafone markets to implement a new architecture, so as to expose OneApp across multiple African markets.
- Created a products catalog API for OneApp to retrieve data bundles, SMS, voice, and home internet products.
- Integrated Redis caching and an AI engine for customer usage-based offer calculations on the catalog API.
- Developed backend features for managing postpaid accounts on OneApp.
- Integrated voucher top-up via scratchcard and M-Pesa APIs on OneApp.
- I refined our encryption library to leverage HashiCorp Vault for key management, offering a secure alternative to AWS KMS.
- Improved query times on multiple microservices on our digital identity platform through Mongo DB, Redis caching and Apache Kafka streaming.
- Developed a communication utility service with failover options, facilitating other services to send messages via SMS or email.
- Developed a microservice for the digital identity platform to manage user access, implementing role-based permissions and user group management.
- Developed a mailing service for digital identity, allowing for configuration of custom mail templates and servers with support for both SMTP and POP3 protocols.
- Participated in weekly cross-team and cross-project architecture, design, and code review sessions.

2. SOFTWARE ENGINEER AT PESAPRINT LTD, 03/2022 to 07/2023

2.1. Senior Software Engineer, 01/2023 to 07/2023

- I collaborated with a team of engineers to deliver the "*Enforce*" project. This is a system utilizing laser speed cameras, accurately capturing traffic offenders and fines motorists based on their traffic violations.
- Migrated the payment module from a monolithic to a microservice architecture, enhancing performance, and security.
- Implemented a transaction queuing service using Kafka-compatible RedPanda, resulting in a 70% reduction in transaction request failures.
- Integrated Sumsub KYC APIs for fraud reduction, enabling customer identity verification through face matching, liveness checks, and document validation.
- Integrated privacy-enhancing technologies (PETs), such as encryption, secure data storage, and access controls.

- Implemented data anonymization and pseudonymization techniques to minimize the risk of re-identification and protect sensitive customer data.
- Mentored and guided junior team players.

2.2. Software Engineer, 03/2022 to 12/2022

- Collaborated with product managers to define and prioritize product roadmaps, aligning technology initiatives with business goals.
- Integrated third-party APIs for seamless integration with banking and payment gateways, streamlining financial operations.
- Developed a top-up service that enabled customers to top-up wallets through bank agents.
- Enhanced the payments service with 2-factor authentication, mail/SMS integration, transaction dashboards, and reports.
- Collaborated with cross-functional teams, including legal and compliance, to ensure the implementation of privacy by design.
- Contributed to agile development methodologies through active participation in daily stand-ups, sprint planning, and progress updates.
- I deployed a self-hosted GitLab instance on our local servers for version control and set up the GitHub organization for open source.

3. SOFTWARE DEVELOPMENT INTERN AT KENYA SCHOOL OF GOVERNMENT, 03/2020 to 06/2020

- Contributed to documenting software requirements, designs, and user manuals, aiding knowledge sharing.
- Assisted with work plan mapping, report planning, and writing to support the organization's goals and objectives.
- Researched and evaluated new tech to enhance software development capabilities.
- Gained valuable business and analytical skills while working in a fast-paced and challenging environment.

4. ANDROID DEVELOPER AT FOREX TRADING ACADEMY, 11/2018 to 12/2019

- Developed APIs for data sharing between the mobile app and website, improving data exchange and user experience.
- Designed a user-friendly interface for the Android app using Adobe XD, maintaining visual appeal.
- Implemented an efficient database schema to securely store customer and business information, ensuring data integrity.

EDUCATION

1. **BSc Information Technology**, Jomo Kenyatta University of Agriculture and Technology. Attained a 2nd Class Honours Upper Division
2. **Kenya Certificate of Secondary Education**, Njoro Boys High School : Attained a B+ / 3.4
3. **Certification in Information Security and Ethical Hacking**, Zalego Academy : Attained a distinction
4. **Certification in Mobile and Web Software Development**, Zalego Academy : Attained a distinction
5. **Certification in Website Design and Development** at Alphax College : Attained a Distinction

ACHIEVEMENTS

- Certificate of Appreciation, Safaricom Hackalimpics Innovation Week 2024 for contributions to the themes: Customer Obsession, Growth, and Simplicity.

PERSONAL PROJECTS

1. **Duesclerk** : DuesClerk is a versatile Android app for managing dues and debts for personal and business use.
2. **Properlogue** : Properlogue is an intuitive Android platform connecting property owners and agents with prospective buyers.
3. **Linux VMware Host Modules Builder** : This is a linux shell tool that enable users downloads, builds, and installs VMware host modules for your Linux VMware Workstation installation.
4. **Linux Desktop Environment Utility** : This is a linux shell tool that enables users install, debug and uninstall desktop different environments.

LANGUAGES

English (Professional)

Swahili (Professional)

Spanish (Basic)