JUN KI MOTURI

Senior Software Engineer | Tech Lead Nairobi, Kenya | +254719448593 | junki.moturi@outlook.com [LinkedIn](#) | [GitHub](#) | [Portfolio](#)

PROFESSIONAL SUMMARY

Innovative **Tech Lead & Senior Software Engineer** with 5+ years of experience specializing in high concurrency fintech ecosystems. Expert in building scalable digital lending platforms and AML (Anti-Money Laundering) solutions using **Java (Vert.x), SQL Server, and MongoDB**. Proven track record of leading engineering teams to deliver systems supporting **85,000+ active users** with seamless M-Pesa integrations and real-time ERP synchronization. Passionate about bridging the gap between robust enterprise backend systems and immersive 3D technologies.

TECHNICAL SKILLS

- **Languages:** Java (8, 17), JavaScript (ES6+), PHP, C++, C#, Python, SQL.
- **Frameworks/Libraries:** Vert.x (3, 4), React Native, React.js, Laravel 12, Flutter, Electron.js.
- **Databases & Storage:** SQL Server, MongoDB, PostgreSQL, MySQL, Redis.
- **DevOps & Infrastructure:** Docker, Linux Server Administration, AWS, GCP, CI/CD.
- **Fintech & Security:** M-Pesa API Integration, Biometric Auth, Keycloak (IAM), AML Fuzzy Search, JWT.
- **Game Development:** Unreal Engine (AI Behavior, Physics, Procedural Generation).

PROFESSIONAL EXPERIENCE

Tech Lead / Software Developer *AO Technologies Ltd | May 2021 – Present*

Key Achievement: Scalable Digital Lending Ecosystem

- **Challenge:** Design a high-availability lending platform for 3 organizations with complex financial scheduling.
- **Action:** Architected a reactive system using **Java 8 and Vert.x 3** with a **SQL Server** backend. Integrated M-Pesa for automated disbursements and repayments.
- **Result:** Successfully scaled to **85,000+ customers**, maintaining zero-lag performance during peak reporting periods. Integrated real-time journal entries with an **ERP solution** to ensure 100% accounting accuracy.

Key Achievement: AML & Compliance SaaS (Active Development)

- **Challenge:** Build a high-performance Anti-Money Laundering tool to aggregate and search global watchlists.
- **Action:** Utilized **Java 17 and Vert.x 4** with **MongoDB** to implement a high-speed **Fuzzy Search** engine across 4 global data sources.
- **Result:** Developed a robust SaaS-ready architecture capable of processing multi-source data ingestion and real-time compliance flagging.

Key Achievement: Loan Origination & Collection Systems

- **Action:** Developed a modular suite for loan origination and automated debt collection/alerts using **Vert.x** reactive programming.
- **Result:** Improved debt recovery rates by automating alert triggers and streamlined the onboarding process for thousands of new applicants.

Unreal Engine Game Developer *Freelance | June 2022 – Present*

- Developed high-fidelity 3D environments using **Quixel Megascans** and procedural generation.
- Implemented complex AI behavior trees and physics-based movement systems, achieving high engagement from beta testers.

ICT Technician Intern *Kenyatta National Hospital | Nov 2019 – Jan 2020*

- Optimized hospital network infrastructure, reducing system downtime by **40%**.

EDUCATION

Jomo Kenyatta University of Agriculture and Technology (JKUAT) *BSc in Computer Science | 2016 – 2021*

- **Final Year Project:** OCR-to-Speech engine for the visually impaired (Python, Pytesseract).

PROJECTS

- **Digital Lending Platform:** High-concurrency Java/Vert.x system with M-Pesa integration.
- **AML Search Engine:** Java 17/MongoDB fuzzy search tool for financial compliance.
- **HR System:** Payroll generation, leave management, clock in/out.

- **Loan Origination and Collection systems:** Loan creation with highly configurable multi-stage approval process, customer follow up and interactions modules with updates though SMS.
- **Pytesseract-OCR:** Open-source OCR integration (available on GitHub).

LANGUAGES

- English & Kiswahili (Native/Fluent)
- Japanese & German (Beginner / Currently Learning)