FELIX KWASI SARPONG

Software Engineer (Backend & Distributed Systems)
Remote (U.S.-facing)
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SUMMARY

Software Engineer with 5+ years of experience building scalable, high-throughput backend systems using Java/Spring Boot and Python/FastAPI. Delivered production systems processing millions of transactions, reducing incident resolution time by 35% and improving API latency by 25%. Experienced in distributed systems, event-driven architectures, and AWS-based cloud platforms supporting U.S.-facing fintech products.

CORE SKILLS

Languages: Java, Python, TypeScript, JavaScript, SQL, TSQL

Backend & APIs: Spring Boot, FastAPI, REST APIs, Microservices, Apache Kafka, Redis, Node.js, Laravel

Frontend: React, Angular, Vue.js, HTML, CSS

Cloud & DevOps: Amazon Web Services (AWS), Docker, Terraform, CI/CD, GitHub Actions

Databases: PostgreSQL, Oracle, MySQL

Distributed Systems & Reliability: Event-Driven Architecture, Scalability, Observability, Fault Tolerance

Machine Learning & Privacy: PyTorch, Differential Privacy, Adversarial Machine Learning, Model Evaluation, NLP, LLM

EXPERIENCE

Senior Software Engineer — FIDO (U.S.-facing Global Fintech, Remote)
Jan 2024 – Dec 2024
- Designed and built Spring Boot services processing over 1M+ transactions per day using Kafka and JMS.
- Reduced production incident resolution time (MTTR) by 35% through improved observability and tracing.
- Improved API response latency by approximately 25% via SQL tuning, Redis caching, and pool optimization.
- Supported U.S. payment integrations and PCI-DSS compliance requirements.
- Mentored junior engineers and interns, improving delivery velocity and code quality.

Software Engineer — EFT Corporation (Payments Platform)
Aug 2021 – Dec 2023

- Built and operated backend services for a prepaid card platform handling 20M+ transactions per month .
- Reduced transaction processing latency by 15–25% through Redis caching and backend optimizations.
- Led Visa, Mastercard, and Verve certification initiatives ensuring ISO 8583 compliance.
- Implemented PCI-DSS security controls including PAN encryption, tokenization, and TLS enforcement.

Software Engineer — Republic Bank
Oct 2020 – Jul 2021
- Engineered APIs integrating Temenos T24 across internal and external banking systems.
- Supported systems processing ~7M transactions per month via secure middleware flows.
- Automated reconciliation workflows, reducing manual operational effort by 50%.
- Built internal tooling and dashboards using Laravel, Vue.js, and Node.js to support compliance workflows.

Backend Developer — Passmall
Dec 2019 – Aug 2021
- Designed backend APIs supporting payment gateways and seller onboarding.
- Increased system throughput and deployment reliability through backend refactoring and CI/CD automation.

Graduate Researcher — ML & Privacy – Texas Tech University
Jan 2025 – Dec 2025
- Paper under review at ACM SACMAT 2026.
- Designed and executed black-box and white-box adversarial evaluations to analyze privacy–utility tradeoffs under differential privacy.
- Built distributed ML experimentation pipelines using PyTorch Lightning and Opacus for privacy-preserving recommender systems.

PROJECTS

Fraud Detection Microservice — Spring Boot, Kafka, Redis, AWS
- Built an event-driven fraud detection platform processing high-volume transaction streams.
- Implemented Kafka pipelines and Redis-based velocity and device tracking.
- Integrated ONNX-based ML inference with automated alerts using SNS $\rightarrow$ SQS $\rightarrow$ Lambda.
- Stored audit-grade fraud decisions in PostgreSQL for regulatory compliance.

EDUCATION

M.S. Computer Science — Texas Tech University (USA) | 2024 – 2025
B.S. Computer Science — KNUST | 2016 – 2020