# Mensah Alkebu-Lan

**Senior Architect & Developer** | Cloud • Data • Streaming • Distributed Systems • Full Stack
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## PROFESSIONAL SUMMARY

Senior Architect & Developer with 15+ years of experience designing and delivering cloud-native, high-throughput systems on Google Cloud Platform (GCP) and AWS. Proven expertise in Java, Scala, Kafka, BigQuery, and large-scale data pipelines supporting billions of transactions. Strong background in distributed team leadership, including coordination across US-based and Southern India teams. Google Cloud Professional Data Engineer certified with hands-on experience replacing manual, task-based workflows through AI-driven automation.

## TECHNICAL SKILLS

- **Cloud Platforms:** Google Cloud Platform (BigQuery, GKE, App Engine), Amazon Web Services (EC2, Redshift, Load Balancers)
- **Languages:** Java, Scala, Python, Golang
- **Streaming & Data:** Apache Kafka, Kafka Streams, BigQuery, PostgreSQL, MongoDB, Hadoop, Spark, Databricks
- **DevOps & AI:** Kubernetes, Docker, Jenkins, GitHub Copilot (AI-assisted development), CI/CD, Infrastructure Automation
- **Architecture & Patterns:** Microservices, Event-Driven Architecture, API Gateway (Apigee), Distributed Systems, High Availability

## PROFESSIONAL EXPERIENCE

### Consulting Lead Developer — GenuineXS

*Remote | Jan 2026 – Present*

- Architected and developed a minimum viable product for a secure, multi-tenant identity platform using Python, Next.js, TypeScript, Flutter, and other advanced backend technologies.
- Built a scalable serverless backend using AWS Amplify Gen 2 and Lambda, implementing SCIM 2.0 for seamless enterprise provisioning with Okta and Azure AD.
- Engineered complex client-side cryptography utilizing the Web Crypto API and WASM to integrate FIDO2 with advanced signature validations.
- Developed agentic AI workflows in Python to automate intelligent identity verification and detect anomalies in role-based access.
- Integrated LLM-based autonomous agents into the AWS serverless backend to streamline SCIM 2.0 enterprise provisioning decisions.

### Consulting Software Engineer — Verizon

*Irving, TX (Remote) | Apr 2025 – Dec 2025*

- Architected, developed, and maintained high-performance, scalable backend microservices and RESTful APIs using Java and Spring Boot within an Agile delivery model.
- Integrated and optimized GCP BigQuery for efficient data retrieval, transformation, and aggregation across massive datasets, writing complex and highly optimized SQL queries.
- Designed and implemented advanced Redis caching and pub/sub strategies to drastically reduce system latency, optimize backend performance, and support distributed architectures.
- Built and maintained resilient event-driven data pipelines handling both real-time and batch workloads, using Apache Kafka, GCP Pub/Sub, and Cloud Dataflow.
- Collaborated with DevOps and cloud engineering teams to containerize applications with Docker and deploy them to Google Kubernetes Engine (GKE) via automated CI/CD pipelines.
- Authored and maintained detailed technical specifications, architecture diagrams, and system design documents to ensure alignment across cross-functional teams.

### Consulting Software Engineer — CVS

*Irving, TX (Remote) | Oct 2024 – Mar 2025*

- Contributed to the migration of a legacy healthcare cost transparency solution to Google Cloud Platform (GCP), working with GCP Architects to ensure a seamless transition of complex data and application logic.
- Analyzed, refactored, and optimized complex Scala codebases, applying functional programming paradigms and Scala's concurrency model, including Futures and Akka Actors, to process large datasets.
- Integrated refactored Scala application logic with GCP-native services, specifically Cloud Spanner and Cloud Functions, modernizing the overall data architecture.
- Deciphered and implemented intricate business rules embedded in legacy code to filter healthcare procedures, associate medical codes, and build cases for cost estimation.
- Managed build and deployment workflows using Git, SBT (Scala Build Tool), and continuous integration (CI) pipelines to ensure reliable delivery and version control.
- Utilized the Play Framework for data handling and application structuring, aligned with continuous modernization efforts.

### Consulting Lead Engineer — Verizon

*Irving, TX (Remote) | Sep 2022 – Sep 2024*

Senior technical lead for a cloud-native, high-volume data platform supporting consumer media services and IoT analytics.

- Architected and delivered PlusPlay, a large-scale, consumer-facing application using Scala (Play Framework), Next.js, and microservices architecture.
- Designed and implemented a real-time IoT streaming analytics pipeline using Golang producers and Apache Kafka, optimized via partition and replication strategies for high throughput and fault tolerance.
- Utilized BigQuery for data processing and analytics within the IoT streaming pipeline to support reporting and insights for high-volume device telemetry.
- Deployed containerized microservices on Kubernetes, enabling scalable, fault-tolerant processing across multiple availability zones.
- Led API-first design using Apigee, enabling secure, scalable external and internal API consumption.
- Employed AI-assisted development tools (GitHub Copilot) to automate coding tasks, increasing development velocity and reducing manual, repetitive workflows.
- Collaborated with cross-functional stakeholders on security and architecture topics aligned with 5G and 3GPP standards.

**Key Technologies:** Java, Scala, Golang, Kafka, BigQuery, GKE, AWS, Apigee, Kubernetes

### Consulting Full Stack Developer / Tech Lead — US Bank (PwC Implementation Partner)

*New York, NY | Jan 2021 – Sep 2022*

Key contributor and de facto architect for a mission-critical financial document processing platform.

- Designed cloud-native services using Scala Play Framework and Java Spring Boot, deployed on GCP Kubernetes Engine (GKE).
- Implemented data persistence layers using PostgreSQL and MongoDB, and integrated OCR and ML pipelines (ABBYY FlexiCapture).
- Coordinated best working practices between on-shore (US) and off-shore (India) teams, ensuring consistent delivery, code quality, and architectural alignment.
- Led backend architecture decisions while supporting React and React Native front-end applications.
- Integrated business rules using Drools and workflow orchestration via Activiti.

**Key Technologies:** Java, Scala, GCP, GKE, PostgreSQL, Kubernetes, React, React Native

### Consulting Software Engineer — BNY Mellon

*Jersey City, NJ | Jul 2020 – Dec 2020*

- Developed and deployed Java Spring Boot APIs on Kubernetes.
- Leveraged Jenkins CI/CD pipelines and GCP App Engine for scalable deployments.
- Improved data access and performance using DB2.
- Mentored and supported an 8-member engineering team.

### Consulting Software Engineer — Twitter

*New York, NY | Feb 2019 – Dec 2019*

- Streamlined tweet data processing using asynchronous, event-driven data pipelines.
- Leveraged BigQuery and GCP data services to perform large-scale tweet data analysis and analytics.
- Developed Scala APIs using Finagle and Finatra, with native Kafka Streams integration.
- Deployed services on Google Kubernetes Engine (GKE).

**Key Technologies:** Scala, Kafka, BigQuery, GCP, Kubernetes, Hadoop

### Earlier Experience (2006 – 2018)

- Delivered data platforms, streaming systems, and cloud integrations using Kafka, Spark, AWS, GCP, and Java/Scala ecosystems for Comcast (2017–2018), Macquarie (2018–2019), and Reed Elsevier (2016–2017).
- Supported public-sector and enterprise engagements including De Lage Landen, CGFNS, McKesson, CMS, and NOAA/NASA/FAA.
- Worked with Anne Arundel County Schools (2012–2013), Howard University Middle School (2009–2012), and The Cultural Exchange Shop (2006–2009).

## EDUCATION

- **B.S., Engineering Physics —** Virginia State University
- **Doctoral Studies, Computational Mathematics (Coursework Completed) —** Howard University

## CERTIFICATIONS

- Google Cloud Professional Data Engineer
- Google Cloud Professional Cloud Developer
- TOGAF 9 Architecture Framework
- Kubernetes Cloud Native Associate
- Oracle Certified Professional — Java SE / Java EE
- Oracle Big Data Certified Implementation Specialist