Samson Kwaku Nkrumah

+353874831977 | samsonnkrumah253@gmail.com | linkedin.com/in/samson-kwaku-n-a47187104/ |
github.com/Boanerges1996 | boanerges.me

PROFESSIONAL SUMMARY

Results-driven software developer with expertise in full-stack development and creating robust, scalable applications. Proficient in multiple programming languages, frameworks, and cloud technologies. Strong problem-solving skills and dedicated to staying updated with emerging technologies. Experienced in delivering high-quality solutions within deadlines and budgets.

EDUCATION

Lovely Professional University   Punjab, India
B. Tech Computer Science and Engineering

EXPERIENCE

Software Engineer   April 2023 – Present
Webrtc Ventures/Agilityfeat   *Charlottesville, VA, USA*

- Developed Custom Live Video Recording Solution: Designed and implemented a live video recording system using the Amazon Chime SDK, ensuring instant video availability through advanced stream processing and storage techniques.
- Automated QA Testing: Automated QA processes using Loadero, significantly enhancing productivity by enabling the efficient generation of multiple user profiles for testing.
- Integrated AWS Services: Improved an internal project by integrating AWS technologies, including Amazon Chime SDK, Amplify, and Cognito, while adding new features and resolving critical system bugs.
- Built High-Throughput Custom Protocol: Developed a custom high-throughput protocol for a geo-satellite in Canada, enabling communication services such as chat, email, SMS, and voice in remote areas.
- Implemented Real-Time Transcription and Analytics: Delivered real-time transcription and analytics solutions in surgical settings by integrating Symbl AI, accompanied by a dashboard for operational monitoring
- Optimized Satellite Communication System Design: Designed and architected a high-throughput communication system for a geo-satellite in Canada, implementing advanced congestion control mechanisms that significantly increased data throughput, enhanced system reliability, and ensured seamless communication in remote areas
- **Technologies Used:** Node.js, Express.js, Nest.js, React.js, Flask, TypeScript, Next.js, MongoDB, PostgreSQL, DynamoDB, AWS (Chime SDK, Amplify, Cognito, ECS, Lambda), Symbl AI, Docker, Redis, GraphQL, Janus, SIP, Satellite Communication, etc.

Software Engineer/Architect (Full-time)   September 2021 – March 2023
Reprezentme Ltd   *Abuja, Nigeria*

- Led the design and architecture of the entire Reprezentme system.
- Integrated Work Methods: Successfully integrated work methods to align organizational goals with the corporate mission, leading to significant business growth.
- End-to-End Encryption: Developed and deployed an end-to-end encryption solution for group messaging, significantly improving the confidentiality of organizational communication.
- Mobile App Development: Designed, developed, and launched a polling and chat-based mobile app available on the Play Store and App Store, receiving positive user feedback.
- **Technologies Used:** Node.js, Nest.js, JavaScript, TypeScript, Flask, Socket.io, RabbitMQ, MongoDB, PostgreSQL, GraphQL, AWS (EKS, S3, CloudFront, Route53, CloudWatch), React.js, Dart, Flutter, Next.js, Kubeshark, Redis, etc.

Senior Software Engineer (Contract)   April 2022 – August 2022
Fairwords Inc.   *Longmont, CO, USA*

- Maintained Legacy Systems: Assisted in maintaining and updating legacy systems written in .NET, ensuring their stability and reliability.
- Development Contributions: Created change documentation, participated in code reviews, and conducted integration and testing to enhance the development process.
- MVP Development: Collaborated with the Guide team to develop an MVP of their Guide Client product using Electron.js.
- Guide App Enhancements: Improved user experience and functionality for the Guide App, a web application built with AngularJS and Apollo Client, through regular updates and enhancements.

- Reusable Codebase: Developed reliable, reusable code suitable for deployment in distributed cloud environments, improving scalability and adaptability.
- DevOps Innovations: Partnered with the DevOps team to implement solutions using the MongoDB Kafka Connector and Kafka on Confluent Cloud, enhancing system performance and reliability.
- **Technologies Used:** Node.js, JavaScript, TypeScript, Lambda, Nest.js, GraphQL, AngularJS, Electron.js, MongoDB, Kafka, RxJS, AWS, etc.

Tech Lead/Software Engineer   June 2020 – September 2021
Xearth Pvt.   *Abidjan, Ivory Coast*
- Developed Customer-Centric Applications: Contributed to developing applications with a strong focus on user experience and satisfaction, leading to a 20% increase in customer retention.
- Infrastructure Management: Managed the infrastructure of all software products on AWS EKS, ensuring smooth operations and high availability, resulting in a 40% reduction in infrastructure-related issues.
- Serverless Migration: Migrated services and applications to serverless technology, achieving significant cost savings for customers and improving operational efficiency by 45%.
- System Re-Architecture: Proposed and led the re-architecture of existing systems to align with enterprise-grade clean architecture and best practices, enhancing maintainability and scalability.
- Focus Pay Design: Designed and architected Focus Pay, a fintech application by Focus Group, which reached 100k users and provided a seamless, secure user experience.
- **Technologies Used:** Node.js, JavaScript, TypeScript, Nest.js, Express.js, Flutter, Dart, Python, React Native, GraphQL, etc.

Software Engineer   September 2016 – July 2019
Asqii Llc   *Kumasi, Ghana*
- School Management System: Developed and maintained a school management system used in three African nations, improving education administration and operations. (https://schooldesk.cc).
- Notification System: Designed and built the notification system (Mimir) that powers the entire application, enhancing communication and efficiency using Flask, Kafka, and third-party services.
- Customer Solutions: Collaborated with software development and testing teams to design and develop reliable solutions that addressed customer needs for functionality, scalability, and performance.
- Desktop Application: Worked on an Electron React-based desktop application designed for schools using the management system, providing an intuitive and seamless user experience.
- **Technologies Used:** Node.js, Express.js, Lambda, Python, Flask, Django, React, Electron.js, React Native, PostgreSQL, GCP, JavaScript, TypeScript, Docker, Cloud Run, etc.

PROJECTS

PP-Stream | *Node js, nestjs, mongodb, webrtc, rabbitmq, flutter, dart, react js, socketio*   September 2022
- Built this live streaming application during a 24-hour hackathon, which supported many different formats mp4, vimeo, etc. It also had a feature for replaying and pausing.
- It was built using an event-driven microservice architecture, with WebRTC and Socket. The technologies used include node js, nestjs, mongodb, webrtc, rabbitmq, flutter, dart, react js, socketio, etc.

Fnf-express | *Node.js, Express.js, NestJS*   March 2021
- Developed an NPM package to streamline the development of Node.js applications written in Express.js, inspired by the NestJS CLI.
- Implemented MVC Architecture to enable easy server creation using a CLI-based approach.

CERTIFICATIONS

Certified AWS Cloud Practitioner

Certified AWS Solutions Architect Associate Level

TECHNICAL SKILLS

LanguagesC, C++, Python, Java, Dart, Javascript, and Typescript, C#, etc.
Frameworks: React, Nextjs, Angular, Flutter, Express Js, Django, Flask, Nest Js, Next Js, Angular Js, Electron Js,
Data: MySQL, Postgres, MongoDB, Sqlite, Cassandra, DynamoDB, ELK, Pinecone, etc.
Developer Tools: Git, Github, GCP, AWS, Trello, Slack, Discord, Jira, Confluence, Jenkins, Linux Server Administration, Data-Dog, RabbitMQ, Kafka, Docker, Kubernetes, WebRTC, RMTP, XMPP, ELK, Grafanna, Prometheus, Nginx, Apache, HAProxy, Cypress, Jest, Jmeter, etc
Libraries: pandas, numpy, scikitlearn, gensim, spacy, tensorflow, etc.