Alen Xia
Software Engineer

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SUMMARY

- **Software developer** and **DevOps specialist** with **4+ years** of experience delivering scalable, high-availability **Cloud-Native** and **GenAI** applications.
- Proficient in **Java**, **Python** and **TypeScript**, with deep knowledge of distributed systems, microservices, and containerization.
- Extensive hands-on expertise with **AWS**, and a proven track record in designing and automating CI/CD pipelines and optimizing cloud infrastructure to consistently enhance performance and achieve substantial cost savings.
- Years of practical experience in **Agile development**. Skilled in collaboration, problem-solving, and clear communication with both technical and non-technical teams.

SKILLS

JAVA-BASED BACKEND DEVELOPMENT
- Java.
- Spring MVC, Spring Boot, Spring Cloud.
- Hibernate, Querydsl, MyBatis.
- Junit, Spock, Groovy.
- Zookeeper, AWS MQ, RabbitMQ.
- Selenium.

PYTHON-BASED BACKEND DEVELOPMENT
- Python.
- FastAPI.
- Pandas, NumPy.
- Playwright.

AWS CLOUD COMPUTING & DEVOPS
- AWS Services: Lambda, RDS, IAM, VPC, CloudWatch, etc.
- CI/CD Automation, Cloud Resource Optimization, Access Management, Authentication, Encryption, Security & Compliance, Troubleshooting.
- AWS CDK, AWS CloudFormation, AWS CodePipeline.
- AWS Step Functions.

DEV TOOLS & PROJECT MANAGEMENT
- IntelliJ IDEA, PyCharm, VS Code.
- RESTful API, WebSocket, OpenAPI v3.
- Git, GitHub, GitLab, AWS CodeCommit.
- Gradle, Maven, Flyway, JWT.
- Teams, Jira, Confluence, Eraser.
- Agile Methodologies.
- Linux.

AI APPLICATION DEVELOPMENT
- PyTorch.
- LangChain, LCEL, Agent, RAG, Memory, LangGraph, LangSmith.
- AWS SageMaker, AWS Bedrock.
- AWS OpenSearch, Pinecone.

CONTAINERIZATION & ORCHESTRATION
- Docker.
- Kubernetes, AWS ECS, AWS EKS.

DATABASES
- MySQL: Performance Tuning, Indexing, Transactions.
- Oracle, PostgreSQL.
- AWS DynamoDB.
- Redis.

QUARKUS & NATIVE IMAGE
- Quarkus.
- GraalVM, Native Image.

BIG DATA & ETL PROCESSING
- AWS Glue, AWS Data Catalog Crawler.
- AWS S3, AWS Redshift.
- AWS Athena, AWS QuickSight.

FRONTEND & UI DESIGN
- JavaScript, TypeScript.
- Node.js, React, Next.js.
- Tailwind CSS

WORK EXPERIENCES

SENIOR CLOUD ENGINEER

PwC | June 2021 - June 2024

Responsibilities:

Led the design of end-to-end cloud-native architectures, collaborating with global teams to deliver cutting-edge cloud and AI solutions. Specialized in cloud-native application development, Generative AI solutions, and cloud migration projects on AWS platforms.

Tech Stacks:

Java, Python, FastAPI, LangChain, LangGraph, LangSmith, Pinecone, Quarkus, GraalVM, AWS, Azure, Docker, Kubernetes, Hibernate, Querydsl, MySQL, Oracle, PostgreSQL, Redis, Flyway, Maven, Groovy Scripts, Spock, Git, OpenAPI.

Key Achievements:

- **Developed multiple high-performance cloud-native applications** using Java and its ecosystem, leveraging Quarkus and GraalVM for native image generation, and deployed them on AWS, significantly improving system scalability and efficiency.

- **Built intelligent Generative AI chatbots** using LangChain, LangGraph, and LangSmith. Mastered advanced AI techniques like prompt engineering and Retrieval-Augmented Generation (RAG), which improved user engagement and automated complex tasks.

- **Improved database performance** by optimizing SQL queries, tuning indexes, and enhancing systems in MySQL, resulting in faster query execution times and better resource utilization.

- **Migrated multiple enterprise infrastructures to AWS,** setting up essential resources like VPCs, EC2 instances, databases, containers, and CI/CD pipelines, streamlining operations and reducing infrastructure costs.

- **Streamlined development processes** by creating Maven Archetype templates and implementing code quality tools— such as integrating Google Checkstyle checks into the Maven lifecycle and adding Git pre-commit hooks for code submissions—improving code quality and reducing development time for the team.

- **Promoted best practices in code development and DevOps** through code reviews and documentation, enhancing overall team productivity and software quality.

- **Collaborated effectively with global teams across different time zones,** frequently working with teams in the United States and India. Participated in early morning internal meetings and evening international conferences daily, ensuring seamless project integration and delivery. Facilitated knowledge sharing among international colleagues.

- **Guided junior developers and colleagues** on code-related issues through video sessions and face-to-face meetings, helping them solve technical problems by explaining underlying principles and sharing problem-solving approaches. Regularly recommended new technologies to broaden the team's horizons, fostering a culture of continuous learning and improvement.

- **Delivered projects ahead of schedule,** receiving commendations from clients and stakeholders for exceeding expectations and demonstrating reliability.

- **Adapted quickly to rapidly evolving technological environments,** showcasing strong problem-solving skills by effectively integrating new technologies and methodologies into ongoing projects.

JAVA DEVELOPER

Kindo | March 2020 – June 2021

Responsibilities:

Developed medical data systems using Java and Spring Boot, ensuring stability and high performance across hospital networks.

Tech Stacks:

Java, Spring Boot, Spring MVC, Maven, MyBatis, MySQL, JUnit, Git, Linux, Tomcat, Nginx.

Key Achievements:

- **Developed and enhanced medical data systems** using Java, Spring Boot, and MyBatis, ensuring stability and functionality across hospital networks.

- **Managed on-site deployments and maintenance** at major hospitals, proficiently handling Linux servers, deploying applications via Tomcat, and configuring Nginx for optimal performance, ensuring smooth operation and high system reliability.

- **Optimized core system code** for enhanced stability and performance, reducing downtime and improving system efficiency.

EDUCATION

BACHELOR OF SCIENCE
University of Melbourne | March 2016 – December 2019
Major: Computing and Software Systems

CERTIFICATIONS

AWS Certified Data Engineer – Associate
November 2024

AWS Certified DevOps Engineer – Professional
October 2023

AWS Certified SysOps Administrator – Associate
October 2022

AWS Certified Solutions Architect – Associate
June 2022

AWS Certified Developer – Associate
October 2021