BIKASH MAINALI
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SUMMARY

Full-stack software engineer with 8 years of experience building scalable distributed systems for Fortune 500 companies including Apple and Morgan Stanley. Expert in Java, Spring Boot, React, Angular, Vue.js, and cloud-native architectures. Strong track record of designing microservices handling 500+ healthcare organizations, implementing real-time data pipelines with Kafka, and building AI-powered applications using RAG and LLMs. Proven leader in mentoring engineers and driving technical excellence through rigorous code reviews and best practices.

TECHNICAL SKILLS

Languages: Java, Python, JavaScript, TypeScript, Groovy, SQL
Frontend: React.js, Vue.js, Angular, HTML5, CSS3, Sass, Tailwind CSS, jQuery, Bootstrap
Backend: Spring (Boot, MVC, Data, Security, Cloud), Node.js, Express, Hibernate, JPA, FastAPI
Databases: MSSQL, MySQL, Cassandra, PostgreSQL, Oracle, PL/SQL, IBM DB2, MongoDB, RDS, Liquibase
Cloud & DevOps: AWS (EKS, RDS, Lambda), Docker, Kubernetes, Jenkins, GitHub Actions, CI/CD
Message Queues: Kafka, ActiveMQ, RabbitMQ
Design Patterns: Facade**,** Singleton, Prototype, Strategy, Template Method, Chain of responsibility, Observer, Builder, Factory, Adapter, Decorator, Proxy, Composite
SDLC: Agile/Scrum/Kanban, Waterfall
Tools: Git, Jira, Gradle, Maven, Postman, Swagger, SonarQube, Grafana, ELK Stack, Lacework
Testing: JUnit, Mockito, TestNG, Playwright, Selenium, TDD, BDD, TestContainers
Architecture: Microservices, RESTful APIs, GraphQL, Event-Driven Architecture, Design Patterns
Interest: AI/ML, DevOps & Cloud

PROFESSIONAL EXPERIENCE

Senior Software Engineer   **07/2024 – Present**
CHG Healthcare, Utah, US
- Architected and developed microservices using Java 21 and Spring Boot serving healthcare professionals across multiple platforms, ensuring high availability and scalability
- Built AI-powered video chat assistant using RAG architecture with LLaMA model, Python FastAPI, and React.js to enhance internal productivity and user experience
- Implemented Kafka-based event-driven architecture with producer-consumer patterns, redesigning critical functionalities and monitoring message queues via Kafka UI to improve data pipeline reliability
- Engineered CI/CD pipelines with GitHub Actions reducing deployment time by 40% and integrated SonarCloud achieving 95% code coverage compliance
- Orchestrated Docker containerization and Kubernetes (EKS) deployments with zero-downtime releases, leveraging Grafana and Opsgenie for real-time monitoring and incident response
- Integrated Boomi iPaaS to synchronize customer data from Salesforce to LocumSmart, automating data workflows and reducing manual data entry errors
- Utilized MongoDB for storing unstructured healthcare metadata including provider details and timesheet notes, optimizing query performance through proper indexing strategies
- Mentored 3 junior engineers on system design, debugging techniques, and engineering best practices, elevating team code quality and delivery velocity
- Led agile ceremonies including sprint planning, retrospectives, and feature demos, ensuring alignment with business objectives and stakeholder requirements

Java Developer   **07/2023 – 09/2024**
Morgan Stanley, New York, US

- Developed Enterprise Customer Risk Ranking (ECRR) system and AML/CFT solutions processing millions of transactions daily for global financial compliance
- Designed and implemented Single Client View (SCV) application using Angular 15 and TypeScript with Material UI, improving user experience and reducing client lookup time by 60%
- Built RESTful APIs using JAX-RS and Spring Boot, integrating Elastic Search for fast search capabilities and Redis Cache to reduce database queries by 50%
- Implemented Kafka messaging layer between ECRR and multiple business units for real-time risk calculation and notification distribution across systems
- Developed Shell and Python scripts with AutoSys for automated batch processes including risk calculation, data sourcing, cache loading, and database backups
- Utilized MongoDB for client risk profiling with optimized indexing strategies, improving query response times by 40%
- Created stored procedures and optimized SQL queries in IBM DB2 and MSSQL, enhancing database performance for high-volume transactions
- Established CI/CD pipelines with Jenkins and implemented database versioning using Liquibase, ensuring smooth deployments and zero data migration issues
- Achieved 85% code coverage through comprehensive unit testing with JUnit and Mockito following TDD Principles

Java Engineer (Contract)   **10/2022 – 02/2023**
ADVANTIS GLOBAL INC. – Client: APPLE, Cupertino, CA, US

- Developed high-performance microservices for Apple Search Ads platform using Java 11, Spring Boot, and RxJava, serving millions of daily ad requests with sub-100ms latency
- Deployed and managed microservices on Elastic Kubernetes Service (EKS) with Docker, ensuring 99.9% uptime and horizontal scalability
- Implemented CI/CD pipelines using Rio and Spinnaker, reducing deployment cycles by 50% and enabling multiple daily releases
- Applied design patterns (Facade, Singleton, Strategy, Template Method, Observer, Builder, Factory, Adapter) to improve code maintainability and flexibility
- Practiced Test-Driven Development (TDD) achieving 80%+ code coverage using JUnit and TestNG for all features
- Integrated Kafka producer-consumer APIs for event-driven communication between applications, processing millions of events daily
- Utilized SonarQube for continuous code quality analysis and Grafana for distributed system monitoring and performance optimization
- Worked with Cassandra and Oracle databases, optimizing queries for high-throughput ad serving scenarios

Software Engineer (Contract)   **03/2021 – 10/2021**
Deerwalk Services Pvt. Ltd., Kathmandu, Nepal

- Architected File Mapper Engine microservices supporting 500+ healthcare organizations with RESTful APIs, API Gateway, and Spring Security (OAuth2 & JWT)
- Built responsive interfaces using Angular 9, TypeScript, and Angular Material UI with lazy loading optimization, improving page load times by 70%
- Integrated Elastic Search with Spring Boot for efficient DSD file searches, creating custom DSL queries and Kibana dashboards for performance metrics visualization
- Implemented Apache Kafka for real-time streaming data pipelines enabling asynchronous data exchange between business applications
- Automated browser testing using Selenium WebDriver and established CI/CD pipelines with Jenkins integrated with SonarQube for continuous code quality analysis
- Conducted security assessments using SCA, SAST, and DAST tools, identifying and mitigating vulnerabilities before production deployment
- Mentored junior developers and collaborated with design team on new feature development and technical design documentation

Java Web Developer   **03/2020 – 03/2021**
Datum Systems Pvt. Ltd., Kathmandu, Nepal

- Developed complete anti-money laundering (AML) and anti-terrorist financing (ATF) application for Nepal's largest commercial banks
- Created RESTful web services for KYC using Spring Boot with JWT and OAuth2 security implementation
- Utilized Spring Data MongoDB and JPA for database operations, creating batch jobs for data synchronization between systems
- Developed full-stack features using React with Redux for state management and Angular with TypeScript for responsive UI components
- Implemented design patterns (Facade, Singleton, Strategy, Template Method, Chain of Responsibility, Observer, Builder, Factory, Adapter, Proxy)
- Practiced TDD with JUnit and Mockito, and BDD testing using Cucumber framework achieving high code coverage
- Created stored procedures in PostgreSQL to optimize query performance for high-volume transaction Processing

Web Application Developer   **05/2017 – 02/2020**
Ishani Technology Pvt. Ltd., Lalitpur, Nepal

- Developed enterprise web applications using Spring MVC, Hibernate, and JAX-RS for multiple ecommerce clients
- Built dynamic user interfaces with Angular, jQuery, AJAX, JSP, HTML5, and CSS3 ensuring cross browser compatibility
- Optimized PostgreSQL databases with stored procedures and implemented Test-Driven Development using JUnit and Mockito
- Applied design patterns including Singleton, Template Method, Strategy, Adapter (DTO), Facade, Builder, and Factory

EDUCATION

Master of Science in Computer Science   **2023**
Maharishi International University, Fairfield, Iowa

Bachelor of Engineering in Information Technology   **2017**
Cosmos College of Management and Technology, Lalitpur, Nepal

CERTIFICATIONS

Boomi Professional Developer (2025 – 2027) | Boomi Associate Developer (2025 – 2027)