AAKASH BASNET

Software Engineer

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Technical Skills

Languages: Java (8–21), JavaScript/TypeScript, Python, SQL, PL/SQL
Frameworks: Spring Framework/Spring Boot, Angular, Node.js, Django, Flask
Libraries & UI: React, Redux, Ag Grid, Material UI
Databases: PostgreSQL, Oracle, MongoDB, MySQL
Cloud & DevOps: AWS (ECS, EKS, EC2, MSK, Aurora, DynamoDB, S3, API Gateway), Docker, Kubernetes, Jenkins, GitHub Actions
Messaging & Integration: Kafka, REST, GraphQL
Tools & Testing: JUnit, Mockito, SonarQube, Checkmarx, Fortify, Git
Monitoring & Observability: Prometheus, Grafana, Dynatrace

Experience

Senior Software Engineer | Salient Touch Futbol Academy, S3 Technical Solutions Inc, Irving, TX | Feb 2025 – July 2025

- Designed and developed RESTful webservices in Java 17/Spring Boot on AWS (ECS, Aurora RDS, Lambda, S3, CloudWatch) to support scheduling of 1,000+ sports events/month.
- Built a multi-sport engine using Strategy patterns, improving feature extensibility.
- Integrated Stripe and PayPal SDKs to process $10K+/month in transactions, ensuring PCI DSS–compliant payment flows that improved reliability and customer trust.
- Implemented Keycloak-based OAuth2/OIDC with RBAC and JWT validation in Spring Security.
- Reduced database latency 40% via SQL optimization and smart indexing.
- Developed reusable React components, increasing engagement (time-on-page +25%, bounce rate −18%).

Senior Software Engineer | Mastercard, St. Louis, MO | July 2022 – Jan 2025

- Developed Spring Boot 3 microservices for financial risk tracking, deployed on AWS (EKS, MSK,API Gateway, Aurora RDS, CloudWatch).
- Built secure, validated REST APIs ensuring compliance with secure coding standards.
- Applied strategic object reuse and avoided unnecessary object creation in critical request flows and custom data structures, lowering GC and allocation overhead.
- Optimized backend throughput via multi-threading, JVM tuning, and Redis caching, increasing peak throughput from 850 to 1,250 req/sec (+47%), reducing p95 latency from 320 ms to 190 ms (-41%), and achieving a 91% Redis cache hit rate.
- Applied Factory, Strategy, Builder and Decorator patterns, improving workflow testability 40%.
- Implemented TTL-based Redis caching for request tokens, reducing redundant evaluations.
- Enhanced large dataset rendering using Ag Grid SSR pagination, reducing load times 50%.
- Built real-time Kafka data pipelines, reducing event latency and improving cross-service communication.
- Improved initial load speed 30% via React.lazy and code splitting.
- Created front-end component library, doubling development speed for new features.
- Wrote unit & integration tests, integrated with Jenkins/Bitbucket.
- Resolved 100% of security issues flagged by SonarQube/Checkmarx.
- Monitored API performance and microservice health with Prometheus/Grafana dashboards and AWS CloudWatch metrics.

- Coordinated 3 agile teams (15+ engineers) to deliver features ahead of schedule.

Software Engineer | University of Colorado, Denver, CO | June 2020 – May 2022

- Built and deployed 10+ microservices in Java 8/Spring Boot on AWS/OpenShift, supporting workflows for 10K+ students/admins.
- Designed and integrated secure payment processing workflows (tuition/fees) with third-party APIs, ensuring PCI compliance and real-time transaction validation.
- Configured Circuit Breaker pattern with Resilience4j to gracefully handle downstream failures, preventing cascading outages and reducing error rates by 35%.
- Optimized complex Oracle/PostgreSQL queries, improving performance 35%.
- Integrated
- Created PL/SQL stored procedures to automate financial workflows.
- Implemented Kafka producers/consumers for fault-tolerant messaging.
- Built 20+ dynamic React/Redux UI components, increasing engagement 15%.

Software Engineer | SAP , Herndon, VA | Feb 2018 – May 2020

- Designed and developed Spring Boot–based microservices integrated with AWS services (S3, SES, SNS) and secured APIs using Spring Security with OAuth 2.0, enabling secure and scalable enterprise solutions.
- Built core backend functionality using Java, Spring MVC, Hibernate ORM, and JDBC templates, ensuring efficient data persistence and transaction management.
- Developed single-page applications with React (React Router, Router Guards) and AngularJS, delivering responsive and dynamic UI components with Bootstrap, HTML, and CSS.
- Implemented asynchronous messaging and data processing using Kafka (with failure message reprocessing) and JMS, improving system reliability and throughput.
- Collaborated in Agile (SCRUM) teams, introducing Smartsheet for backlog and requirements management, streamlining tracking of 200+ reports, 20+ data extracts, and SAP integration deliverables.

Education

Bachelor of Science in Computer Science **|** Howard University, Washington, D.C | *Summa Cum Laude* **|** May 2019

Course Works: Data Structures and Algorithms, Software Engineering Principles, Object Oriented Design, Database Management, Computer Architecture, Operating Systems, Computer Networking, Probability and Statistics, Computer Organization, Calculus, Linear Algebra, Discrete Mathematics, Numerical Analysis, Machine learning

Achievements

- 1st place in MIT Tech Policy Hackathon 2022 – Performed data analysis using Python, NumPy, and Matplotlib to guide policy recommendations.