

VAMSI KRISHNA BH

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SUMMARY

- Senior Software Engineer with 6+ years of experience designing and delivering scalable, cloud-native, event-driven systems for enterprise and telecom platforms.
 - Expert in Java 17, Spring Boot, Microservices, WebFlux, and REST APIs, with a strong foundation in distributed systems, fault tolerance, and system design.
 - Led large-scale modernization initiatives, transforming monoliths into resilient microservices using Kafka, RabbitMQ, and PostgreSQL/MySQL, driving major gains in scalability and release velocity.
 - Full-stack engineer with hands-on experience building high-performance web applications using React, Angular, TypeScript, and Redux.
 - Strong cloud and DevOps background with AWS, Docker, Kubernetes, and Jenkins, enabling automated CI/CD pipelines and zero-downtime deployments.
 - AWS Certified Solutions Architect, Academic Excellence Award recipient, and published researcher.
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TECHNICAL SKILLS

- **Backend Development:** Java (11–17), Spring Boot, Microservices, WebFlux, REST APIs, Hibernate, JPA, Distributed Systems
- **Frontend Development:** Angular (12–16), React.js, Redux Toolkit, TypeScript, JavaScript, HTML5, CSS3, Responsive Design
- **DevOps & Cloud:** Docker, Kubernetes, Jenkins, CI/CD Pipelines, AWS (EC2, S3, RDS, ECR, ECS, IAM), Linux, Unleash
- **Messaging & Integration:** Apache Kafka, RabbitMQ, IBM MQ, WebSockets, Event-Driven Architecture
- **Databases & Data Management:** PostgreSQL, MySQL, MongoDB, Redis, DynamoDB, Database Design, ORM
- **Testing & Quality:** JUnit, Mockito, Jasmine, Test-Driven Development (TDD), REST Assured
- **Tools & Version Control:** Git, Maven, Gradle, JIRA, Confluence, Swagger / OpenAPI

PROFESSIONAL EXPERIENCE

Sr. Software Engineer

Feb 2025 - Present

Verizon, TX, USA

- Led modernization of large-scale telecom platforms by transforming legacy monoliths into event-driven microservices using Java 17, Spring Boot, WebFlux, Kafka, and AWS, significantly improving scalability and system resilience.
- Implemented asynchronous messaging and integration workflows using Kafka, RabbitMQ, and IBM MQ, enabling seamless interoperability between modern microservices and legacy systems during the TracFone integration.
- Designed and delivered 30+ REST APIs across distributed services, reducing code duplication by 40% and accelerating development and release cycles.
- Developed high-performance, real-time user interfaces using React.js and Redux Toolkit, reducing UI latency by ~40% and improving user experience.
- Optimized PostgreSQL and MySQL queries, indexing strategies, and data access patterns, improving reporting and data retrieval performance by 30%.
- Improved application reliability, security, and observability by implementing resilience patterns, JWT-based authentication, RBAC, and centralized logging with the ELK Stack, consistently supporting 99.99% uptime.

Software Engineer

Jan 2023 - Feb 2025

SLHT Services, NJ, USA

- Contributed across the full SDLC to build and support enterprise workforce management applications using Java, Spring Boot, Spring Security, and microservices architecture.
- Developed secure backend services with REST APIs, JWT-based authentication, and role-based authorization, improving system security and compliance.
- Built data-driven dashboards and admin interfaces using Angular (12–16), React.js, Highcharts, and Chart.js, enabling real-time reporting and operational insights.

- Designed and optimized PostgreSQL/MySQL schemas, SQL/PL-SQL queries, and indexing strategies, significantly improving reporting performance and data accuracy.
- Deployed and maintained microservices on AWS (EC2, ECS, RDS, S3, Lambda, API Gateway) with Docker, Kubernetes, and Jenkins, improving deployment reliability and release turnaround time.

Graduate Research and Teaching Assistant

Jan 2022 - Dec 2022

Columbus State University, Columbus, GA, USA

- Designed and implemented energy-efficient and secure communication protocols for IoT devices, focusing on authentication and hardware-backed security.
- Recognized for academic excellence and instructional impact with the Academic Excellence Award.
- Served as Teaching Assistant for courses in Python, Java, SQL, and Database Design, supporting instruction, labs, grading, and student mentoring.
- Led and instructed Robotics Programming and Python with Cybersecurity summer camps, teaching core programming and security concepts to students.
- Mentored undergraduate and graduate students, strengthening problem-solving, coding fundamentals, and software engineering best practices.

Software Developer

Jun 2019 - Aug 2021

Silicon Matrix, Hyderabad, India

- Developed and enhanced frontend features for an e-commerce platform using React, Redux, Hooks, JavaScript, HTML5, CSS3, and Bootstrap.
- Implemented and consumed REST APIs using Java, Spring Boot, and JWT authentication, supporting secure CRUD operations.
- Designed relational data models and wrote SQL queries to support backend services and improve data access efficiency.
- Improved API performance by identifying and resolving SQL bottlenecks, reducing response times and improving reliability.
- Built reusable UI components and adopted React Hooks for modern state and lifecycle management.
- Supported maintenance and enhancement of legacy Spring MVC applications, contributing to gradual modernization using Spring Boot and cloud deployments.

EDUCATION

Master of Science in Applied Computer Science

Columbus State University, Georgia

- Graduate Research & Teaching Assistant
- Relevant Coursework: Algorithms, Object-Oriented Programming, Machine Learning, Database Management Systems, Network & Cloud Management

Bachelor of Technology in Computer Science

Malla Reddy College of Engineering and Technology, India

CERTIFICATIONS

- AWS Certified Solutions Architect – Associate

PUBLICATIONS & RESEARCH

- Master's Thesis: "Towards Energy-Efficient Edge Computing for Tiny AI Applications"
 - Researched and implemented edge-optimized AI inference workflows, focusing on efficient deployment, orchestration, and secure communication for distributed AI-enabled systems.
- ACM Conference Presentation: "Mutual Authentication Protocol between IoT Devices and Hardware Security using ZYMKEY"
— Gatlinburg, TN (2022)
 - Architected a hardware-secured mutual authentication protocol using Zymkey to establish trusted device identity and secure communication across distributed IoT and edge-computing systems.

ACHIEVEMENTS & HONORS

- Academic Excellence Award — Columbus State University
- Selected as Graduate Research & Teaching Assistant based on academic performance and technical expertise
- Recognized for research contributions in edge computing and IoT security