

# VAMSI KRISHNA BH

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## SUMMARY

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Senior Software Engineer with 6.5 + years of experience designing and delivering scalable, cloud-native, event-driven systems for enterprise and telecom platforms. Expert in Java 17, Spring Boot, Microservices, and WebFlux, with a deep foundation in distributed systems, fault tolerance, and system design. Led large-scale modernization initiatives transforming legacy monoliths into resilient microservices using Kafka, RabbitMQ, and PostgreSQL, driving major gains in scalability and release velocity. Full-stack engineer with strong AWS, Docker, and Kubernetes expertise enabling automated CI/CD pipelines and zero-downtime deployments.

## TECHNICAL SKILLS

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

## PROFESSIONAL EXPERIENCE

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### Senior Software Engineer — Verizon | TX, USA | Feb 2025 – Present

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

### Software Engineer — US Bank (Contract) | NJ, USA | Jan 2023 – Feb 2025

- Built and supported enterprise workforce management applications across the full SDLC using Java, Spring Boot, Spring Security, and microservices architecture.
- Developed secure backend services with REST APIs, JWT authentication, and role-based authorization, improving system security and compliance posture.
- 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) using Docker, Kubernetes, and Jenkins, improving deployment reliability and release turnaround time.

### Graduate Research & Teaching Assistant — Columbus State University | Columbus, GA | Jan 2022 – Dec 2022

- Designed and implemented energy-efficient, hardware-secured communication protocols for IoT devices, focusing on mutual authentication and edge security.
- Presented research at ACM Conference — architected a hardware-secured mutual authentication protocol using Zymkey to establish trusted device identity across distributed IoT and edge-computing systems.
- Served as Teaching Assistant for Python, Java, SQL, and Database Design; led Robotics Programming and Python with Cybersecurity summer camps for students.
- Recognized with the Academic Excellence Award for research contributions and instructional impact.

### Software Developer — Silicon Matrix | Hyderabad, India | Jun 2019 – Aug 2021

- Developed and enhanced frontend features for a high-traffic e-commerce platform using React, Redux, JavaScript, HTML5, and CSS3.
- Implemented and consumed REST APIs using Java, Spring Boot, and JWT authentication, supporting secure CRUD operations and core business workflows.
- Identified and resolved SQL bottlenecks, improving API response times and overall backend reliability.
- Built reusable UI components with React Hooks and contributed to modernization of legacy Spring MVC applications to Spring Boot and cloud deployments.

## EDUCATION

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M.S. in Applied Computer Science

Columbus State University, Georgia · Graduate Research & Teaching Assistant

B.Tech in Computer Science

Malla Reddy College of Engineering and Technology, India

## CERTIFICATIONS & ACHIEVEMENTS

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**AWS Certified Solutions Architect** – Associate

**Academic Excellence Award** — Columbus State University

Selected as **Graduate Research & Teaching Assistant** based on **academic performance and technical expertise**

## PUBLICATIONS & RESEARCH

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- **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: 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.