# Saransh Bhalla

saranshbhalla@gmail.com | (330) 786-8014 | Boston, MA, USA | https://www.linkedin.com/in/saranshbhalla/

## Summary

Experienced Software Engineer specialized in designing secure, scalable backend systems and distributed architectures on AWS. Proven track record in leading cross-functional initiatives, driving architectural designs, and delivering high-scale platform components with a focus on security, performance, and developer productivity.

## Skills

- Cloud & Infrastructure: AWS (Lambda, EC2, DynamoDB, SQS, SNS, EventBridge, Step Functions, S3, CloudWatch) •
- Programming Languages: Java, TypeScript
- Frameworks & Libraries: ReactJS, GraphQL, Spring, AngularJS
- APIs & Web Technologies: REST, HTML/CSS/JS

## Work Experience

#### **Amazon Web Services**

## **Software Development Engineer**

- Owned architecture and delivery of a high-impact compliance feature for transactions worth millions/month. • Designed across 4 systems, coordinated delivery, drove internal design discussions across teams and coordinated security and operational reviews — ensured a secure, on-time launch for 45,000+ users.
- Re-architected and exposed 10+ internal APIs to clients serving thousands of users, with zero issues reported. •
- Designed a centralized, standardized and reusable authorization layer, used in 10+ APIs, cutting dev time by 20%.
- Designed and launched a scalable entitlement system for all Marketplace sellers, enabling policy-based access control across 3 critical flows. Developed a custom policy grammar to help define complex JSON-based policies.
- Developed a cross-system auditor to detect silent data inconsistencies across ingestion paths. It surfaced and resolved 10+ issues before they could impact business, improving data integrity across teams.
- Led architectural simplification initiative by replacing fragile SQS-Lambda async flows with synchronous and deterministic locking-based designs — resulting in reduced 5xx errors caused by race conditions by almost 90%.
- Identified a potential silent failure in async validations affecting ~15% of cases; implemented shallow pre-checks • that ensured safe rollout of a new feature with seamless user experience.
- Led the decomposition of a legacy backend proxy by relocating all critical validations to the UI, enabling direct ۰ service integration, improving latency by ~20%, and ensuring zero regressions across 3 high-impact workflows.

#### Kuebix LLC, a Trimble Company

#### Software Engineer (Full time and intern)

- Delivered end-to-end development and deployment of core customer microservices in Java and MongoDB, powering key workflows within the Transportation Management System (TMS).
- Refactored and optimized 35+ APIs to improve performance while maintaining strong backward compatibility.
- Wrote a testing framework to do API integration and load testing.
- Worked on Optimizer project, in Java, to solve Vehicle Routing Problem with an extensive set of constraints. Prototyped an NP-hard algorithm that improved performance by 60% under real-world constraints.

#### Software AG Bangalore Technologies Pvt Ltd

#### Assistant Consultant (Role: Software Developer)

- Led UI development for a team of 3 in a cross-functional business application.
- Built and demoed a live IoT integration showcasing edge-device connectivity using Cumulocity presented to 300+ stakeholders at an annual company event.
- Worked on improvement of common UI components used in 4 projects used by 500+ users.
- Was awarded a Quarterly Achievement Award for contribution to the projects.

#### Education

M.S. Computer Science - The University of Akron, Akron, OH, USA B. Tech Computer Science and Engineering - Guru Nanak Dev University, India

Boston MA, USA 06/2022 – Present

Maynard MA, USA 06/2020 - 06/2022

08/2016 - 06/2018

Bengaluru, Karnataka, India

08/2018 - 05/2020 07/2012 - 05/2016