# Saurabh Singh Kushwah

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## Experience

## Druva Data Solutions | Go, AWS, Distributed Systems

Jun 2022 - Current

Senior Staff Software Engineer

Pune, IN

- Daintree Team: Collaborated with the Daintree team to develop multi cloud distributed storage system, leveraging AWS DynamoDB, S3, Azure Blob Storage with a strong focus on data deduplication and low cost of ownership.
- File System Migration: Designed an event-driven architecture to orchestrate the migration of metadata from more than 200,000 devices to the new Daintree storage architecture with minimal customer intervention. (SQS, RDS)
- Ransomware Recovery: Developed Quarantine Bay feature to isolate infected backups after a ransomware attack, preventing backup corruption, and preserving the latest clean backup data from infection. (Channels)
- Control Plane Simplification: Contributed to supporting a multi-region control and data plane workflow by consolidating the control plane into a single deployment to reduce operational costs and complexity.
- CI/CD Improvements: Designed an end-to-end (E2E) pipeline for pre-release testing, automating service setup, data cleanup, and test report generation. Developed multistage jobs taking advantage of go package parallelization reducing overall test duration from hours to under 30 minutes. (CI/CD, AWS, Jenkins, Python)

## Persistent Systems | Java, Spring Boot, Micro Service

Jul 2021 – Jun 2022

Software Engineer

Pune, IN

- Contributed to the development of a microservices-based Transportation Management System (TMS) for BlueDart, India's largest courier company, to manage, optimize, and track shipments, delivery routes, and transportation costs.
- Link/DeLink Paperwork: Developed the Link/DeLink Paperwork feature, enabling the packaging or unpacking of multiple couriers into a single package at a distribution center for transit. Integrated external shipping APIs asynchronously and leveraged concurrency to reduce service time. (Async Java, CTEs)
- Report System: Contributed to enhancing the reporting system to support large reports, developed reports using Jasper, and added support for recursive CTEs for a custom Java JPA extension library. (Blaze-Persistence)

## **Technical Skills**

Languages: Go, Java, Rust, Python, C, SQL, Shell AWS: DDB, S3, RDS, SQS, ECS, SSM, Param Store Tools: Linux, Docker, Kubernetes, Jenkins, Git

Web: Go-Kit, Spring Boot, Tokio

#### Awards

## Outstanding Achievement Award $\mathcal{G}$ | Go, DDB, SQS, RDS

Nov 2024

• Recognized for contribution to the design and development of the migration to new file system architecture, leveraging an event-driven approach. Developed end to end migration workflow using SQS, RDS in an distributed environment.

## Druva Company-Wide Hackathon Winner - AI Assistant & | Go, Shell, Google DialogFlow

Jan 2023

• Led the winning team in Druva's company-wide hackathon with 200+ participants. Developed an AI-powered support assistant that automated customer data analysis, reducing dependency on support staff and increasing efficiency.

#### All Stars Awards 6 | Go, HAProxy, Shell

Jun 2023

• Recognized for outstanding efforts in achieving FedRAMP compliance, ensuring the project met stringent federal security standards and enhancing trust with government clients.

### High Five - Individual Awards 6 | Java, Spring Boot

Mar 2022

• Awarded for successfully managing multiple features independently, executing them in parallel, and consistently meeting deadlines, demonstrating exceptional multitasking and project management skills.

## **Projects**

#### Full-Text Search Engine | Go, Inverted Index

Apr 2021

- Developed a highly efficient full-text search (FTS) engine capable of searching across thousands of documents in less than a millisecond, significantly improving data retrieval speed.
- Extended FTS engine to support complex boolean queries by implementing a multi-stage process, including tokenization, filtering, stop words removal, and stemming, resulting in a robust and versatile search solution.

#### Education

## Savitribai Phule Pune University