

HARSHDEEP MISHRA

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SUMMARY

- **2+ years of software engineering experience** building full-stack applications using Java, Spring Boot, and React.
- Delivered end-to-end microservices, scalable backend APIs, cloud-native solutions, and data pipelines on AWS and GCP.
- Certified as Google Cloud Platform **Associate Cloud Engineer** ([link](#)) and Snowflake **SnowPro Core** ([link](#)).

PROFESSIONAL EXPERIENCE

Haver AI Inc - Seattle, WA | Software Engineer

Feb 2025 - Present

- Designed a medallion architecture **data lake** in AWS S3 to organize 100+ TB of vendor data for analytics and ML consumption.
- Built a Spring Boot metrics service to expose 10+ user statistics from DynamoDB via REST APIs for profile insights.
- Developed **Spring Boot microservices** for experiment tracking and real-time model inference, processing 1K+ inference requests/month for 100+ users via JWT-secured REST APIs.
- Developed a Java-based AWS Lambda function for ingesting 5+ GB of monthly vendor data, with real-time failure alerts via SNS.
- Implemented on-demand loading with Redux and decoupling high-latency API calls, reducing user wait times by 100ms.

Skud - India | Software Engineer

Dec 2022 - May 2023

- Executed client **business KPI** calculations on user activity and network performance with SQL on BigQuery, accelerating analytics.
- Gathered client requirements and optimized data pipelines on GCP Dataproc ephemeral clusters using Spark in Java, reducing cloud costs by 30%.
- Optimized the observability platform with structured logging in GCP Cloud logging, reducing debugging time by 70%.
- Trained 5+ developers on **AWS services**, improving team proficiency in cloud-based development.

Quantiphi - India | Software Engineer

Jul 2021 - Nov 2022

- Developed a Spring Boot-based document retrieval service integrated with S3, exposing secure REST APIs and handling 10K+ monthly file fetches.
- Spearheaded creation of a cloud solution on GCP with Cloud Vision API and Apache Airflow for parallel processing of **1M+ PDF documents** and reducing processing time from 28 days to 10 days.
- Integrated Redis caching with Java-based APIs to reduce response times by over 500ms for serving vendor requests.
- Enforced 5s rate-limiting on high-load APIs via Spring Boot middleware for preventing overload & maintaining performance.

PROJECTS

Graph-Based Forex Rate Optimization | Java, Spring Boot, MySQL, Graphs, Log4j, Docker, AWS

| [Demo](#) | [GitHub](#)

- Engineered a Spring Boot app for real-time multi-currency conversion, supporting 12+ currencies, deployed with Docker on EC2.
- Implemented a shortest path Graph-based algorithm, optimizing exchange routes for 100% improved user profitability.

Multi-Source Live Video Streaming Studio | React, Node, FFmpeg, Socket.io, WebRTC, TailwindCSS, JavaScript

| [Demo](#) | [GitHub](#)

- Built Node.js backend with RTMP, FFmpeg, and WebSocket for real-time Twitch streaming, reducing stream setup time by 40%.
- Created a React frontend with WebRTC-based video previews, overlays, and screen sharing, allowing dynamic stream customization with less than 100ms UI updates.

Taco-DB | C++, Docker, GDB Debugger

- Constructed a mini-RDBMS, employing POSIX-compliant file storage, buffer pool manager, efficient data layout.
- Built B-Tree index for fast lookups, reducing query execution time by 20% while handling large datasets efficiently.
- Implemented memory-efficient join strategies using block nested loop and sort-merge algorithms.

EDUCATION

University at Buffalo, The State University of New York

Aug 2023 - Jan 2025

Master of Science, Computer Science and Engineering

GPA: 3.7/4.0

Relevant Coursework: Algorithms, Database Systems, OS, ML/AI, Software Engineering, Data Intensive Computing

University of Mumbai

Aug 2017 - May 2021

Bachelor of Engineering, Computer Engineering

GPA: 9.15/10

- **Winner**, Smart India Hackathon (SIH) 2019 – A national-level hackathon held at NIT Trichy, competing against **50+** teams.

TECHNICAL SKILLS

- **Programming** : Python, JavaScript, SQL, C, C++, Java, TypeScript, HTML/CSS
- **Frameworks** : Node.js, React.js, Flask, Spark, Spring Boot, Express.js
- **Data & Storage** : MySQL, Hive, MongoDB, Redis, PostgreSQL, DynamoDB
- **Cloud** : AWS (Lambda, S3, EC2, SQS, Glue, API Gateway, Sagemaker), GCP (BigQuery, Dataproc, Composer)
- **Tools** : Git, Docker, Linux, terraform, Kafka, Machine Learning, CI/CD, Agile