

## SUMMARY

Software Engineer with 3 years owning critical microservices and infrastructure at Deutsche Bank. Enjoy diving deep into internals, building scalable systems, debugging, and mentoring.

## SOFTWARE ENGINEERING SKILLS

- Languages & Frameworks :** Java, Spring, Spring Boot, Python, SQL
- Infrastructure :** Hazelcast, Spark, Kafka, Redis, Elasticsearch, GCP, AWS, Docker
- Concepts :** Distributed Systems, Concurrency, System Design, OOP
- Others :** REST, gRPC, Terraform, SonarQube, Junit, Mockito
- AI/ML :** LLM Integration, RAG, pgvector, HNSW, PyTorch, Diffusion Models

## PROFESSIONAL EXPERIENCE

### Career Break

Indian Civil Services Examination (Mathematics Optional)

- Linear Algebra, Analytics, Numerical Analysis algorithms; ranked in the **top 2%** of 800K+ candidates reached stage-2

Gurugram, India

Jan 2024 – Nov 2025

### Deutsche Bank

Software Engineer (Associate)

Pune, India

September 2023 – December 2023

- Achieved fast-track promotion to Associate (SDE-II) for consistent performance excellence, mentorship, and **autonomous ownership** of critical microservices
- Built and scaled Spring Boot data-ingestion microservices (**50M+ records/day**) using MQ and Spark, with 80%+ test coverage and mTLS encryption

### Deutsche Bank

Software Engineer (Analyst)

Pune, India

July 2021 – September 2023

- **Owned JVM tuning for 24-node Hazelcast cluster**-analyzed G1GC logs, adjusted heap configuration based on server capacity analysis, and led post-deployment monitoring to ensure stability during high-load cVA runs
- Co-led Gravity modernization-rebuilt data ingestion as event-driven pipeline, delivering **\$500K annual savings**
- Drove Hazelcast 4.x & Camel 3.x upgrade across tightly-coupled modular monolith—**deep-dived documentation, debugged config migrations**, retuned parameters, **averting 8-week compliance delay**
- Strengthened engineering practices across team—automated repetitive workflows, enforced pre-commit hooks, led KT sessions, and contributed to Cucumber/Mockito QA test suites
- Optimized Drools engine via HashMap lookups, **reducing rule-evaluation latency 20%**
- Resolved production outages and averted regulatory impact by isolating data corruption across 160M+ records

### Google Summer Of Code 2020 Student Developer

Remote

May – September 2020

incf Belgian Node - Intern

- Developed cell-tracking module using the **Viterbi Algorithm**, ImageJ, delivering the first production-ready iteration
- Improved tracker performance by reducing algorithmic complexity from **cubic  $O(n^3)$  to quadratic  $O(n^2)$**

## PROJECTS

### AI-Powered Knowledge Hub | Java 25, Spring Boot, Kafka, pgvector

- Designed distributed indexing pipeline using **Virtual Threads** and **Kafka fan-out** for parallel LLM embedding generation
- Built vector similarity search using **pgvector HNSW** indexes with **Redis** caching for low-latency RAG queries

### Diffu-Syn: Synthetic Data Generator | PyTorch, FastAPI, Celery, Redis

- Designed event-driven training platform with async job orchestration and automatic retry logic
- Built **DDPM-based diffusion model** for tabular data with **Polars** streaming, enabling training on larger-than-RAM datasets

### OpenBB Terminal (OSS) | Python, 37k+ stars

- Merged 2 PRs fixing data integrity issues: blank US rates export values and incorrect insider trading display order

## ACADEMICS

### Indian Institute Of Engineering Science & Technology Shibpur

WB, India

B.Tech in Electronics & Telecommunications; CGPA: 9.15/10

July 2017 – June 2021

- DSA, Database management systems, Soft Computing, Digital Signal Processing, Computer Networks

## ACHIEVEMENTS

**Certifications** MarcoBehler(JetBrains) Spring Professional, deeplearning.ai RAG, Educative AWS Bedrock

**Rewards** Deutsche Bank Recognition Award 2022

**Leadership** Indian Army (Engineers - 2017) - Cleared SSB 5-day eval of IQ, EQ, personality, and leadership traits