

Hrishikesh Bhardwaj

Software Engineer | Java, AWS, Distributed Systems, Agentic AI | 4.5 YOE | Available Jan 2027
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EDUCATION

Carnegie Mellon University, School of Computer Science Master of Software Engineering GPA 4.0/4.0	Dec 2026
Vellore Institute of Technology B.Tech, Information Technology GPA 8.75/10	May 2021

SKILLS

Languages: Java, Python, C++, Go, Scala, SQL
Frameworks & Data: Spring Boot, Java EE (JDBC, Servlets, EJB), JBoss/WildFly, FastAPI, Kafka, Spark, Samza, REST, gRPC, Microservices
Cloud & DevOps: AWS (EC2, EKS, ECS, S3, Fargate, Lambda), Azure (Functions, App Service), Docker, Kubernetes, Helm, Jenkins, Git, Linux
Databases: Oracle (PL/SQL), PostgreSQL, MySQL, MongoDB, Elasticsearch, Redis, ChromaDB
Distributed Systems: System Design, Event-Driven & Stream Processing, High Availability, Fault Tolerance, Concurrency, Consensus
Practices: Production On-Call, SLAs & Incident Response, Observability (Grafana, Datadog), Object-Oriented Design, TDD, Agile/Scrum
AI & ML: Production LLM pipelines, multi-agent systems, RAG (ChromaDB), MCP, prompt versioning, AI-assisted development across the SDLC

EXPERIENCE

ION Group

Software Engineer 2 Aug 2023 – Jul 2025

- Modernized a **10M+ LOC** distributed Java platform processing **billions of dollars** in transactions, completing an AI-assisted Java 8 to 21 migration **67% faster** than projected across the SDLC.
- Prevented **millions in client losses** from a production pricing defect, confirmed by direct client commendation, by root-causing it and adding core logic that stopped the failure recurring.
- Cut trader execution time **60%** on Aphelion, ION's FX platform, building a one-click Dynamic Trading Algo that mitigated position risk at the breakeven level by monitoring price continuously and placing orders across multiple liquidity providers.
- Shortened vulnerability detection time **75%** and remediated **15+** critical vulnerabilities as Technical Excellence Lead by automating detection and alerting across Black Duck, EC2, and Jenkins, while mentoring **8 engineers** through code and design reviews.
- Led a team launching a new electronic trading product, delivering **30+ features** across requirements, architecture reviews, integration, and testing.
- Improved system efficiency **10–15%** under load with a thread-safe in-memory concurrent cache that cut redundant database queries.

Software Engineer 1

Feb 2021 – Aug 2023

- Scaled XTP, ION's flagship platform, to **millions of trades** per day across **thousands of accounts** for major banks on multiple continents by designing fault-tolerant Java and Java EE microservices on JBoss/WildFly.
- Reduced nightly market data processing **90%**, from **65 minutes to 6**, by cutting p99 per-record processing from **20ms to 4ms** and parallelizing single-threaded stages into a thread-pooled pipeline in Java.
- Sustained 24/7 availability against client SLAs by owning production on-call, triaging incidents, and driving root-cause fixes.
- Shortened patch turnaround from **20 minutes to 2** across **20+ patches** per week, saving roughly **6 engineer-hours** weekly, by automating a Jenkins pipeline to merge fixes into client release branches, run regression suites, and publish in one click.
- Kept **50+** regulatory reports and multi-continent batch workloads within strict nightly deadlines by owning XTP's Oracle persistence layer and tuning schemas and high-volume queries.

PROJECTS

Intelligent Ingestion & Attribute Prediction System | CMU MSE Studio, Client: eParts Services LLC

Team Lead & Forward Deployed Engineer

Jan 2026 – Dec 2026

- Led a **5-engineer** embedded team as Forward Deployed Engineer, cutting the client's manual catalog review volume **3–5x** through per-attribute confidence routing, human-in-the-loop retraining, and a hybrid rule and ML prediction engine.
- Owned requirements and design with client stakeholders across **20+** architecture decision records, shipping ingestion, prediction, routing, and writeback as swappable modules with idempotent writeback and audit logging on Azure, monitored in Datadog.
- Built the team's **32-agent, 7-pipeline** FastAPI engineering-operations system with 7 MCP wrappers and ChromaDB RAG, dispatched from Zoom transcript, Jira, and GitHub PR webhooks. [code](#)
- Made agent routing testable without model calls by separating the orchestration contract from agent output and pinning dispatch order and negative cases across **20** offline scenarios.

Twitter/X User Recommendation System | CMU

Jan 2026 – Apr 2026

- Served personalized recommendations over TB-scale user and tweet data at **70K+ requests/sec** peak with millisecond latency on Kubernetes, backed by a **1TB+** Spark ETL pipeline and a scoring algorithm reaching **98% accuracy**.
- Containerized Java microservices with Docker and Helm on self-managed Kubernetes and benchmarked Amazon EKS against ECS, sustaining **20K req/sec** on Fargate at **\$0.31/hour**.

Uber Ride Booking System using Kafka and Samza | CMU

Jan 2026 – Apr 2026

- Engineered a Kafka and Samza pipeline matching riders to nearby drivers from GPS streams at **10K+ events/sec**, cutting rider-match latency **30%** through stream joins.

Quorum-Based Replication with Raft (Go) | CMU

Aug 2025 – Dec 2025

- Implemented Raft consensus over a simulated RPC layer, holding linearizable consistency under node crashes and message loss.
- Enforced one leader per term via **majority-quorum** elections, with automatic step-down on a higher term and commit on quorum.