

# Arjun Shekar Bharadwaj

*Software engineer with 10+ years of experience in distributed systems, AI/ML platforms and developer tools. Skilled in Java, Python, LLMs and agentic workflows.*

## Experience

- 2024–Present **Senior Software Engineer, Microsoft Azure, Mountain View**  
Building secure, cloud-native compute platforms for Azure Resource Builder, processing billions of resource events for monitoring, compliance, and automation.
- Azure Resource Builder Compute Platform
    - Separated control and data planes to automate workspace provisioning, resource deployment, and compute lifecycle management
    - Integrated Apache Airflow for workflow-driven processing with explicit retries, error handling, and partner-defined DAGs
    - Introduced containerized runtimes so partners can bring Flink, Spark, and RisingWave without language lock-in
    - Built the proof of concept, secured funding, and led four engineers to deliver the platform with self-service onboarding
  - Developer Experience & AI Tooling
    - Created container solution for dynamic NuGet package updates with zero-downtime deployments
    - Championed MCP servers for agentic workflows and custom prompts to speed up team development cycles
    - Deployed production services on AKS using Helm charts and multi-stage CI/CD pipelines
- 2015–2024 **Software Development Engineer, Amazon, Sunnyvale/Bengaluru**  
Built large-scale distributed services in Java (~80%) and Python (~20%). Delivered low-latency APIs, payment systems, and multi-device platforms.
- AI-Powered Targeting & Action APIs – Alexa+
    - Built production AI agent system with MCP-like architecture. Enabled LLM-based device targeting for Music, News and Video domains
    - Designed RAG-style context enrichment with token optimization and Redis caching
    - Created prompt engineering pipelines with In-Context Learning. Achieved **90%+ accuracy** through test harness evaluation
  - Cost & Latency Optimization – Music Recommendations
    - Rebuilt rule engine using composition and strategy patterns. Cut DynamoDB calls and **lowered costs by 50%** with better tail latency
    - Shipped Java APIs handling millions of daily requests. Tuned latency budgets with retry-with-jitter to meet SLOs at peak load
  - Multi-Device Platforms & Leadership
    - Led Vega OS working group with 20+ members (Principal Engineers, Senior Engineers, Product Managers). Aligned API behaviors across device and cloud stacks
    - Ran Q4 readiness with load tests, chaos tests and capacity planning. Mentored engineers on design patterns and test coverage
  - Invoice Generation – Global Seller Platform
    - Built async invoice workflow using S3 and secure SFTP to Deutsche Bank. Added connection pooling for reliable bulk transfers

## Education

2013–2015 **Master of Technology (M.Tech)**, IIIT-B, India, *CGPA: 3.70/4.00*

*Major:* Information Technology

2007–2011 **Bachelor of Engineering (B.E.)**, RVCE, India, *CGPA: 9.00/10.00*

*Major:* Computer Science and Engineering

## Skills

### Languages

Java, JavaScript, Python, C#, Haskell

### Cloud Platforms

AWS (SQS, SNS, Lambda, DynamoDB, Athena), Azure (Event Hubs, Storage Accounts, Container Apps)

### Container & Orchestration

Kubernetes, Docker, Azure Container Registry

### Frameworks & APIs

Spring Framework, Spring Boot, Coral, AUI, Angular, jQuery, Proto + gRPC

### Data & Messaging

AWS Data pipeline, Datamart, Kafka, Apache Airflow

### AI & ML

LLM Integration, Prompt Engineering, Agentic Workflows, MCP Servers, RAG Systems, Langchain, Few-shot Learning