Arjun Shekar Bharadwaj

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○ arjunswaj

Software Development Engineer with 10+ years of experience in backend development and a strong AWS background.

Experience

2019–Current **Software Development Engineer**, *Amazon Lab 126*, Sunnyvale

Experienced software engineer leveraging my expertise in large-scale *distributed system design*, *cloud technologies* and *data-driven development* to build highly available, scalable *microservices* with *AWS* on *Java*, *Python* frameworks for cross-team initiatives.

○ Rearchitected the Target Recommendation Service
- Spearheaded the re-architecture of a critical service using *structural and behavioral design patterns* for enhanced efficiency and maintainability.
- Implemented core product components, enabling the use of business metrics to support *data-driven* decision making.
- Demonstrated expertise in system design, scalability, and the development of metrics-driven solutions.

○ Space based targeting for 3P Smart-home Devices
- Designed and implemented a scalable rule engine to optimize smart-home device targeting.
- Reduced operational *costs by 50%* through service call optimization, demonstrating resourcefulness and focus on efficiency.
- Demonstrated *strong problem-solving skills* in a complex, data-driven environment.

○ Launch Vega Family of Devices
- Collaborated with cross-functional teams (device software, video, middleware) to launch new OS – Vega for media playback.
- Designed solutions that *mitigated latency degradation* and *reduced scaling costs*, demonstrating focus on *performance and cost optimization*.
- Showcased the ability to work *effectively across teams* to deliver a complex product launch.

○ LLM Prompt Engineering for Alexa Endpoint Context Service
- Engineered a system to enhance LLM (*Large Language Model*) action generation using Langchain, minimizing the need for extensive fine-tuning.
- Developed a *few-shot prototype* to improve context handling, resulting in increased LLM robustness.
- Successfully integrated multiple service with LLMs by chaining APIs together.

2015–2019 **Software Development Engineer**, *Amazon Development Centre India*, Bengaluru

Led development and management of Seller onboarding microservices for Amazon.in launch.

○ Launch of Out of Country Merchants in India
- Designed international merchant registration pipeline, accelerating India market expansion.
- Enhanced multiple customer touchpoints with precomputation and caching, reducing latency.

○ AWB and Commercial Invoice Generation
- Built invoice generation service, integrating *AWS SQS* for real-time order processing.
- Streamlined audit workflows with automated SFTP invoice transfer to Deutsche Bank.
- Ensured compliance and streamlined financial processes with secure invoice generation.

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
Cloud	AWS (SQS, SNS, Lambda, DynamoDB, Athena)
Frameworks	Spring, Coral, AUI, Angular, jQuery
Data Integration	AWS Data pipeline, Datamart
LLMs/GenAI	Langchain, MagentaSDK