Arjun Shekar Bharadwaj

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 arjunswaj

Software Development Engineer with 10+ years of experience in
full-stack 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