

Contact

dm.divya.mahajan@gmail.com

www.linkedin.com/in/dm-divyamahajan/ (LinkedIn)
forms.gle/n2jrJJsUw2YqSUDL8
(Personal)

Top Skills

Agents
Artificial Intelligence (AI)
Prompt Engineering

Certifications

Agile Software Development
Verified International Academic Qualifications
AWS Certified Cloud Practitioner
SAP Certified Development Specialist - ABAP for SAP HANA 2.0
Fundamentals of Project Planning and Management

Divya Mahajan

SDE @ Amazon Alexa | Agentic AI | Multiple AI Hackathon Winner & Finalist | Mentor | Scalable Systems | AWS Certified | Python, Java | MS CSE

Santa Clara, California, United States

Summary

As a Software Development Engineer at Amazon, I build scalable test automation systems, data pipelines, and LLM-driven evaluation frameworks for Alexa's audio experiences. My work has increased feature accuracy from 4% to 94.78%, reduced latency by 650ms, and expanded test coverage by 500%—all while maintaining a high bar for privacy, performance, and personalization.

Over the past few months, I've expanded my impact beyond my core role by designing agentic workflows, experimenting with multi-agent automation, and participating in multiple AI hackathons—where my team has been both winners and finalists.

I also mentor engineers and students on system design, technical clarity, interview storytelling, and communication. This has grown into a small but active learning community focused on practical AI, hands-on projects, and career growth.

- Built automated pipelines and intelligent tooling that cut C2P Bluegrass evaluation time from a week to under an hour
- Designed test architectures and extensible frameworks for multi-turn features, while mentoring engineers on evaluation methodology
- Improved data ingestion pipelines between Amazon Music and P13N through checkpointing, deduplication, and recovery mechanisms
- Developed LLM evaluation workflows and internal agentic tools that improve engineering productivity

I have 8+ years of experience across conversational AI, distributed backend systems, and enterprise engineering. Before Amazon, I spent 6+ years building ERP systems, full-stack solutions, and

automation in agile environments. I hold a Master's in Computer Science Engineering and am an AWS Certified Cloud Practitioner.

- Distributed Backend Development and Microservices
- LLM Evaluation Pipelines and Test Automation Frameworks
- Agentic AI, Prompt Engineering, and Multi-Agent Tools
- Cloud-Native Development (AWS, Docker, Kubernetes, Kafka)
- Data Engineering and Intelligent Tooling (Python, Pandas, SQL, S3)
- Mentorship, Technical Communication, and System Design Coaching

I care deeply about building systems that are reliable, scalable, and genuinely useful—and helping others grow their careers with clarity and confidence.

Experience

Amazon

Software Engineer (L5)

July 2024 - Present (1 year 5 months)

Sunnyvale, California, United States

Lead accuracy and latency optimization efforts for multi-turn conversational AI features, increasing recommendation-to-play accuracy from ~4% to 94.78% and reducing median latency by ~650ms per interaction.

Design, develop, and maintain scalable test automation and evaluation pipelines using agentic AI (bedrock), cutting test evaluation turnaround from 3–4 days to under 1 hour and expanding test coverage by over 500%.

Architect and enhance large-scale data ingestion and processing workflows, improving reliability by eliminating failures caused by payload limits and reducing operational overhead by automating checkpointing and recovery.

Expand and maintain comprehensive automated test coverage with over 3,000 online and offline Bluegrass test cases, enabling early detection of edge cases and robust regression prevention.

Provide technical guidance and mentorship to new engineers and QA members, accelerating onboarding timelines and enabling confident independent contributions.

Collaborate with partner teams to onboard new features, aligning testing strategies and improving validation efficiency across multiple organizations.

Implement privacy and security best practices, ensuring compliance and safeguarding user data throughout testing and production processes.

SCU Frugal Innovation Hub
Back-end Developer
March 2024 - July 2024 (5 months)
Santa Clara, California, United States

Crafted a Digital Library Management System tailored for African Libraries:

- Engineered a robust database using AWS RDS, which significantly enhanced transactional efficiency and optimized the management of inventory and reader data.
- Advised and spearheaded the transition from NoSQL Firebase to a relational database structure. This strategic move streamlined the management of datasets under 1GB, reducing system complexity while ensuring scalability and data integrity. By leveraging the free tier of Supabase over AWS RDS, we achieved substantial cost savings, amounting to \$12.41 monthly in development expenses.
- Developed dynamic and insightful web reports utilizing Next.js, a React framework. These reports offer comprehensive insights into library operations, including inventory tracking, user engagement metrics, and transactional analysis. The integration of Next.js not only enriched the system's functionality but also ensured seamless and responsive user experiences across various devices and platforms.

Accenture
Senior Software Developer Team Lead (Level 9)
August 2021 - December 2021 (5 months)
India

- Conducted training sessions for 40+ consultants on data structures & algorithms, HANA certification, and OData/REST API, fostering team development actively.
- Identified and addressed production issues swiftly by delegating actionable resolution tasks.

- Managed production issues effectively, mentoring team members, and delivering timely solutions using object-oriented programming and SQL core data services.
- Led performance testing initiatives to ensure the stability and scalability of solutions, resulting in robust project deliveries.
- Supervised a team of 21 consultants, delivering training sessions on S/4 HANA and ABAP Coding Standard 7.5.
- Monitored production issues, provided timely resolution, and guided the team through technical challenges using OO ALV Reports and RFC for data exchange and excel sheet data upload/download.

Capgemini

Software Development Engineer Team Lead (B2)

February 2020 - August 2021 (1 year 7 months)

Pune, Maharashtra

- Led a team of 17 technical consultants to achieve multiple successful projects, earning client accolades. As the primary point of contact for incidents and change requests, conducted performance reviews and ensured timely deliveries through rigorous testing.
- Analyzed new customer requirements, offering milestone-based effort estimations.
- Fostered collaboration across functions, delivering optimal solutions and milestone-based effort estimations for new customer requirements in three-tiered architecture. Resulted in streamlined processes utilizing relational databases and object-oriented programming in backend development.
- Proactively detected and resolved critical production bugs, showcasing exceptional problem-solving skills and attention to detail. Executed manual workflow recovery, preventing 102 workflow lockouts before a major release, ensuring uninterrupted service delivery.
- Effectively addressed complex production issues through advanced debugging and root cause analysis. Analyzed and resolved issues with high complexity in production using ABAP 7.40 on HANA in SAP Eclipse-ADT and CDS Views in an Object-Oriented environment on SAP 1909 platform with Substitution and Validation, Adobe forms, Workflows, BRF+, and Ariba. Delivered optimal solutions for SAP ABAP S/4 HANA distributed systems, implementing three-tiered architecture and relational databases.
- Provided organizational support, conducted training in IDOC, ABAP on HANA, OData/REST API, and Workflows, and actively participated in over 100 internal/external resource hiring interviews.

Infosys

4 years 6 months

Senior Software Development Engineer (JL4)

July 2019 - February 2020 (8 months)

Pune Area, India

- Resolved 56 JIRA User stories within 5 months, following agile methodology to design, implement, and execute test plans, technical developments, and code reviews.
- Actively utilized RTC/RQM automation suite, performance tuning tools, and SQL trace for code optimization and enhancement.
- Swiftly optimized code, enhancing performance through RTC/RQM automation suite, performance tuning tools, and SQL trace.
- Analyzed User stories in Agile methodology and generated corresponding test cases.
- Developed Reports/Smartforms/SAP Query/Trace Analysis and devised Input strategies.

Software Development Engineer II (3A)

July 2018 - July 2019 (1 year 1 month)

Gothenburg, Sweden

- Led a 7-person team through the entire Software Development Life Cycle (SDLC) in an agile framework, overseeing requirements gathering, analysis, business process re-engineering, and post-go-live support.
- Achieved a 12% increase in client revenue by implementing an end-to-end Supplier Lifecycle Management system, featuring a customized Model View Controller (MVC) design pattern and optimized workflows, validated through comprehensive financial analysis.
- Improved client revenue by enhancing website user experience using BSP Model View Controller (MVC) with HTML, Web Dynpro, Floor Plan Management (FPM) customization, and workflows.
- Provided feasible solutions and developments in BSP Model View Controller (MVC) with HTML, Web Dynpro, Floor Plan Management (FPM) customization, BAdI call, or Implicit enhancements, and workflows.
- Utilized on-site business expertise in multiple Supplier Lifecycle Management implementations, ensuring SLA adherence and meeting project milestones consistently.
- Achieved 95% SLA adherence by consistently meeting project milestones and aligning solutions with client expectations.
- Enhanced system interoperability and performance through seamless data exchange using SOAP protocol and Remote Procedure Calls (RPC).

Software Development Engineer II (3A)

September 2017 - June 2018 (10 months)

Pune Area, India

- Led an offshore MM (Material Management) project, to create Purchase Order, display ALV logs, and print in SAP Scripts/ SMARTFORMS, customizations with user exit, screen exits, BAdI (Business Add-In), and Customer function exits, and display detailed formatted invoices.
 - Implemented data exchange from Ariba systems to ERP systems using SOAP protocol in form of IDOCs and Proxy, used Remote Function Calls (RFC) for exchanging data within SAP, and used AIF for error analysis and error correction in IDOCs.
 - Generated and modified IDOC, Proxy, SAP routine, and RFC to transfer and restrict data per requirement
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- Implemented data exchange from Ariba systems to ERP systems using SOAP protocol (IDOCs and Proxy), Remote Function Calls (RFC), and AIF for error analysis and correction in IDOCs, while leading an offshore MM project for purchase orders and detailed formatted invoices.

Software Development Engineer (3B)

September 2015 - September 2017 (2 years 1 month)

Pune Area, India

- Successfully implemented manual enhancements and developments for upgrades provided by the SAP service portal with distributed, three-tiered architecture, and relational databases, leading to the high availability of service.
- Designed and created detailed and easy-to-follow technical documentation and helped developers understand and dry-run all the changes made in the system during the upgrade.
- Worked on Function modules and Remote Function calls, routines development, Report programs, ABAP List Viewer (ALV) Reports, SAP Scripts, and SMARTFORMS, BADI implementation Extensively.
- Applied 75+ SAP OSS Notes and, created enhancements (User-Exits, Customer exits, Screen Exits), modified ALV reports, and designed new invoices SMARTFORM and translations. Moved TR and built technical documentation

Education

Santa Clara University

