

Siddharth Padmanabhan R

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Summary

Senior Software Development Engineer with 12+ years of experience designing, building, and operating large-scale distributed systems across Amazon Web Services and Amazon Ring. Proven track record of leading customer-facing cloud launches, high-availability services, and distributed storage platforms using Java and Rust.

Experience

02/2026 – Present	Senior Software Development Engineer, Amazon Ring • Build distributed networking services powering persistent connectivity for 80M+ Amazon Ring devices. • Develop large-scale backend services in Rust with a focus on reliability, scalability, and operational excellence. • Provide technical leadership for feature delivery and production operations of highly available persistent-connection infrastructure.	Toronto, Ontario
12/2022 – 02/2026	Senior Software Development Engineer, Amazon Web Services Inc • Technical Lead for the public launch of automated optimization for Apache Iceberg tables in AWS Glue Data Catalog, driving system design, implementation, cross-team execution, and production readiness. • Led API availability improvements for AWS License Manager in the EC2 launch path, increasing service availability from approximately 99% to 99.99% across 30+ AWS Regions through architectural and operational enhancements. • Co-led an S-Team initiative to automate regional provisioning for AWS License Manager, coordinating cross-team dependencies and enabling zero-touch service expansion across 30+ AWS Regions. • Provided technical direction for the AWS License Manager team, leading architecture and design reviews, mentoring engineers, and driving cross-team initiatives from ambiguous requirements through production launch.	Palo Alto, California
07/2018 – 12/2022	Software Development Engineer II, Amazon Web Services Inc • Founding engineer for AWS License Manager, designing and implementing core control-plane APIs, DynamoDB data model, and launch readiness for the public service launch at AWS re:Invent 2018. • Owned distributed backend architecture for Automated Discovery including customer APIs and asynchronous workflows enabling automated enterprise software discovery. • Technical Lead for Managed Entitlements (S-Team goal), leading data-plane architecture and APIs, implementing customer-facing experiences in React/TypeScript, and driving the feature through launch and operational readiness. • Led the end-to-end design and implementation of License Reporting, from architecture through production launch, including customer-facing experiences built with React and TypeScript. • Led the architecture and pilot implementation of a metadata service migration from Amazon RDS to DynamoDB, redesigning the data model for improved scalability and long-term maintainability.	Palo Alto, California
09/2013 – 07/2018	Member of Technical Staff II - III, VMware Inc Developed capacity analytics and automation for cloud-management and network-monitoring products using Java and Python; built performance, integration, and DevOps automation across vRealize Operations and vRealize Network Insight.	Palo Alto, California

Education

2011 – 2013	Master of Science in Computer Science, University of North Carolina, Chapel Hill
2006 – 2010	Bachelor of Science in Computer Science, Magna Cum Laude, University of Missouri, Kansas City

Skills

Languages

Java, Rust, Python, TypeScript

Cloud & Infra

AWS · Apache Iceberg · Linux

Expertise

Distributed Systems · Concurrency · Distributed Storage · High Availability · Fault Tolerance · Scalability · Asynchronous Systems

Frontend

React

Selected Recognition

10/2022	Issued U.S. Patent , <i>Defragmentation Of Licensed Resources In A Provider Network</i>
05/2021	Just Do It Award , <i>AWS EC2 Sierra</i>
05/2019	Operations Excellence Award , <i>AWS EC2 Sierra</i>