

Sumit Mittal

Principal Software Engineer

Bengaluru, IN | +91 9958711669 | sumittal.blr@gmail.com

linkedin.com/in/sumittal | github.com/sumittal

PROFESSIONAL SUMMARY

Architecture & Scale: Deep expertise architecting resilient cloud-native systems, API security, and AI observability platforms utilizing AWS, Kubernetes, Go, and Python.

AI-Driven Velocity: Spearhead org-wide adoption of AI-native developer and QE workflows, integrating Cursor, Cortex Code, and MCP-driven agents to automate testing, shorten release cycles, and raise engineering standards.

Technical Leadership: Proven track record building and scaling high-performing engineering teams, guiding cross-functional architectural decisions, and shipping mission-critical software.

Quality Engineering & Release Leadership: 18+ years establishing 0-to-1 quality cultures, automated release frameworks, and test automation strategies across hyper-growth startups and Snowflake to safeguard system reliability at scale.

SKILLS

Languages & Frameworks: Python, Golang, Java, Perl, pytest, Shell Scripting

Cloud & Infrastructure: AWS, Kubernetes, Docker, Snowpark Container Services (SPCS), Terraform, Helm, CI/CD Pipelines, Linux, Microservices

Observability & Performance: Grafana, Datadog, Locust, k6, Chaos Mesh, Longevity Testing

Databases & Messaging: Kafka, Apache Flink, Redpanda, RisingWave, Aerospike

AI Tools & Developer Platforms: Cursor, Cortex Code, MCP, Langfuse, Ollama / vLLM

AI Domains & Practices: LLM Observability, Agentic Workflows, Continuous Evaluation (Evals), Prompt Governance

WORK EXPERIENCE

Principal Software Engineer, Snowflake

Aug 2024 - Present | Bengaluru

Technical leader on Customer Experience Engineering (CXE), shaping the architecture, reliability, and evolution of the platforms, services, and applications that Snowflake's support engineers, field teams, and customers rely on every day.

- Architected and build an AI-native SDLC automation layer at Snowflake, including deterministic code-review engine, a Confluence-backed test-plan generation pipeline and a release validation framework, replacing ad-hoc agent sessions with auditable, phase-separated workflows by Jira status, improving deliverables efficiency by 3x overall across multiple teams.
- Ideated and built AI code-review skills that combine the best of AI and human-in-the-loop review, evaluating code across pillars like correctness, performance, security, and test-case quality; delivered 500+ PR reviews in a single month, improving overall quality, reducing review cycle time by 50%, and strengthening the reliability of AI adoption in the team.
- Set technical direction and owned end-to-end delivery of CXE's microservices, data pipelines, and applications, from architecture and design through development, testing, and deployment, for systems serving large volumes of diagnostic and support data.
- Developed high-impact internal and customer-facing applications that streamlined workflows for Support and Sales Engineering, and helped Sales Engineers and Field Data Engineers build applications that improved

customer efficiency and accelerated Snowflake adoption at the customer end.

- Owned end-to-end release qualification across 4 CXE applications, aligning cross-org stakeholders to establish a predictable, disciplined weekly release cadence.
- Architected a centralized release and triage dashboard alongside an automated validation framework, replacing ad-hoc sign-offs with deterministic CI/CD gates that cut release cycle times by 50%.

Staff Software Engineer, Fiddler AI

Dec 2023 - Aug 2024 | Bengaluru

Driving the efforts for release, internal tools and reliability of product.

- Spearheaded the 0-to-1 transformation of product qualification from a manual process into an automated CI/CD release pipeline, standardizing release integrity for an enterprise AI observability platform.
- Owned sprint-level release execution and final go/no-go sign-offs, partnering closely with Product Managers and Dev Leads to manage triage capacity and resolve release blockers.
- Designed and implemented an internal tool for streamlined hydration of diverse data models essential for product testing.
- Partnered with the Front-end team to elevate test automation coverage from 30% to 80% within three months, and built automated Upgrade and Scale testing frameworks, contributing to a more robust and reliable testing process.
- Delivered customer demos and technical walkthroughs, gathered feedback, refined requirements, and converted them into executable engineering tasks for the product roadmap.
- Hands-on experience with Agent development, MCP servers, LLM and Gen AI applications.

Staff Software Engineer (DevProd) — Consulting, Redpanda

Sept 2023 - Dec 2023 | Bengaluru

Consulted on developer productivity and connector quality for the Redpanda–Apache Flink ecosystem.

- Built the Python SDK for the Redpanda–Apache Flink connector, enabling streamlined developer integration.
- Designed and developed the test automation framework for the Redpanda–Apache Flink connector.
- Partnered with cross-functional teams to optimize testing workflows and strengthen overall product reliability.

Engineering Manager — Tools & DevOps, Risingwave Labs

May 2022 - Aug 2023 | Bengaluru

Implemented robust performance and reliability testing strategies for the RisingWave database.

- Managed a high-performing team of 6 engineers, spearheading Performance, Quality Engineering, and CI/CD initiatives.
- Led design and implementation of TPCH, Nexmark, and YCSB benchmark frameworks; conducted competitive analysis against Apache Flink.
- Architected and deployed advanced Longevity, Chaos Mesh, and Deterministic testing frameworks on Linux-based clusters, increasing system resilience.
- Engaged with customers and conducted POCs showcasing RisingWave for their use cases.

Staff Software Engineer, Imperva (via Cloudvector acquisition)

Sept 2019 - May 2022 | Bengaluru

Architected and developed test automation frameworks for comprehensive product testing.

- Led quality, automation, DevOps, and CI/CD integration during the seamless integration of Cloudvector into Imperva.

- Pioneered the QE Cloudvector team, establishing foundations for processes, tools, and frameworks as the first engineer.
- Designed and implemented test frameworks for System, End-to-End, and Performance Testing.
- Set up Frontend testing using Cypress/Cucumber; used Locust and k6 for load/perf testing.
- Conducted customer demos and proof-of-concept sessions, refined requirements based on feedback, and converted them into engineering-executable tasks for the product team.
- Owned hiring and mentorship, expanding the team significantly.

Staff Software Engineer (Tools and QE), Aerospike

Sept 2016 - Aug 2019 | Bengaluru

Led development of robust test frameworks and tools for the Aerospike database.

- Optimized dependent tooling by cleaning up obsolete large backend test logs from AWS S3.
- Spearheaded development of an innovative log analysis tool, reducing manual test log analysis effort.
- Achieved 30% reduction in execution time for large test suites via strategic framework optimizations.
- Created a user-friendly QE dashboard providing a historical view of test cases.
- Standardized coding rules for test cases and library code, ensuring consistency.

Senior System Developer, One.com

June 2013 - Aug 2016 | Bengaluru

- Created a restricted shell that restricts user operations based on privileges; built Authentication, Session, and logging system.
- Mentored team members in developing features for the restricted shell.
- Developed a WebAUTH Server in Perl using Starman, enabling efficient Single Sign-On.
- Designed and implemented a Perl XS Wrapper integrating MIT Kerberos C library components.

Member of Technical Staff, NetApp India Pvt Ltd

July 2009 - June 2013 | Bengaluru

- Designed automation frameworks consumed by QA teams.
- Developed Perl libraries for storage resiliency features in NetApp OS.
- Maintained libraries and unit tests for new releases of ONTAP.

Software Engineer, Wipro

Oct 2007 - July 2009 | Bengaluru

- Automated test cases in Perl for network devices like switches and routers.
- Performed regression testing for various features.
- Planned, estimated, and prepared test case execution strategy for the team.

EDUCATION

Bachelors, Electronics and Communications, K.N.I.T Sultanpur, UPTU | 2003 - 2007