

Hemanth Kumar

Senior Performance Engineering Specialist



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Bangalore, India



LinkedIn Profile

Professional Summary

10+

Years Experience

500+

Tests Executed

40+

Projects

12+

Tools Mastered

Performance Testing & Engineering Expertise

- ▶ Around **10 years of experience** in Performance Testing and Engineering using industry-leading tools like LoadRunner, JMeter, Gatling, and NeoLoad.

- ▶ Expert in **performance bottleneck identification** and resolution across diverse environments including Web Services, Microservices, and Cloud platforms.
- ▶ Skilled in designing **realistic user behavior models** , executing complex load test scenarios, and conducting root cause analysis for performance issues.
- ▶ Proven ability to **optimize application performance** by 40-60% through comprehensive analysis and targeted improvements.
- ▶ Domain expertise in Healthcare, Telecom, and Banking with a strong track record of resolving high-impact production performance issues.

Performance Optimization & Scalability

- ▶ Designed and implemented **scalability solutions** for applications serving 1M+ concurrent users.
- ▶ Reduced API response times by **65%** through query optimization and caching strategies.
- ▶ Implemented **auto-scaling solutions** using Kubernetes HPA and AWS Auto Scaling Groups.
- ▶ Developed performance **baselines and KPIs** for continuous monitoring and improvement.

End-User Experience & Simulation

- ▶ Integrated **Selenium with performance tools** to simulate true end-user experience and measure rendering times.
- ▶ Developed custom solutions to **correlate functional responsiveness** with system performance under load.
- ▶ Implemented synthetic monitoring to **proactively detect performance degradation** before impacting users.

Cloud & Container Performance

- ▶ Optimized **Kubernetes performance** through resource allocation tuning and pod scheduling strategies.
- ▶ Conducted **distributed performance testing** across multi-region cloud deployments.
- ▶ Implemented **cost-effective scaling solutions** reducing cloud infrastructure costs by 25%.

Observability & Monitoring

- ▶ Designed comprehensive **monitoring dashboards** using Grafana with Prometheus/InfluxDB.
 - ▶ Implemented **distributed tracing** with Zipkin to identify latency across microservices.
 - ▶ Reduced **MTTR by 40%** through enhanced monitoring and alerting configurations.
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Professional Experience

Senior Software Engineer

VNC Digital Services Pvt Ltd, Bangalore

 Jan 2024 to Present

- ▶ Led performance testing for a **unified banking application** handling 500+ TPS with sub-second response times.
- ▶ Implemented **Grafana with Prometheus** for real-time infrastructure monitoring during load tests.
- ▶ Reduced **page load times by 45%** through frontend optimization and CDN implementation.
- ▶ Developed custom JMeter plugins to **simulate complex banking transactions** with dynamic data.

Key Achievement: Improved system throughput by 60% through query optimization and caching strategies.

Senior Lead – Performance Engineering

Alten Calsoft Labs Pvt Ltd, Bangalore

 June 2022 to Aug 2023

- ▶ Conducted performance testing for **telecom management systems** handling 10K+ concurrent users.

- ▶ Identified and resolved **database bottlenecks** improving query performance by 70%.
- ▶ Implemented **DataDog APM** for end-to-end transaction tracing across microservices.
- ▶ Developed performance **test automation framework** reducing test execution time by 50%.

Achievement: Reduced system latency by 55% through JVM optimization and thread pool tuning.

Senior PAC Engineer

Synchronoss Technologies Pvt Ltd, Bangalore

 Feb 2020 to June 2022

- ▶ Optimized **Kafka consumer performance** increasing throughput by 40%.
- ▶ Implemented **Kubernetes-based monitoring** with Prometheus and Grafana.
- ▶ Reduced **API 99th percentile latency** from 1200ms to 250ms.
- ▶ Designed **chaos engineering experiments** to validate system resilience under failure.

Contribution: Improved system scalability to handle 3x traffic spikes during peak events.

Senior Performance QA Engineer

Digital Harbor Pvt Ltd, Bangalore

 *May 2013 to Jan 2020*

- ▶ Increased **system throughput by 400%** for Medicaid Provider Portals serving 5M+ users.
- ▶ Reduced **JVM GC pauses by 80%** through heap optimization and GC tuning.
- ▶ Implemented **automated performance regression** testing integrated with CI/CD pipelines.
- ▶ Developed **custom monitoring solutions** reducing performance issue detection time by 70%.

Key Result: Achieved 99.99% availability for critical healthcare enrollment platform.

Technical Expertise

Performance Testing

- ✓ JMeter (Advanced Scripting)
- ✓ LoadRunner (Web, Web Services)
- ✓ Gatling (Scala-based Testing)
- ✓ NeoLoad (Enterprise Testing)
- ✓ Locust (Python-based)

Monitoring & APM

- ✓ Grafana + Prometheus
- ✓ Datadog (Full Stack)
- ✓ Dynatrace (AI-powered)
- ✓ New Relic (Application)
- ✓ AppDynamics

Profiling & Diagnostics

Cloud & Infrastructure

✓ JProfiler

✓ YourKit

✓ VisualVM

✓ SQL Profiler

✓ Wireshark

✓ AWS (EC2, ECS, RDS)

✓ Kubernetes (EKS, AKS)

✓ Docker (Containerization)

✓ Serverless (Lambda)

✓ Terraform (IaC)

Databases & Caching

✓ SQL Server (Query Tuning)

✓ PostgreSQL (Performance)

✓ MongoDB (Sharding)

</> Programming & Scripting

✓ Java (Core, Concurrency)

✓ Python (Automation)

✓ JavaScript (Node.js)

✓ Redis (Caching)

✓ Elasticsearch (Optimization)

✓ Groovy (JMeter)

✓ Bash Scripting

Methodologies

✓ Performance Engineering

✓ Chaos Engineering

✓ Site Reliability Engineering

✓ CI/CD Integration

✓ Shift-Left Performance

Tools & Platforms

✓ Jenkins (Pipeline)

✓ Git/GitHub (Version Control)

✓ Jira (Project Tracking)

✓ Kafka (Performance Testing)

✓ Selenium (Integration)

Education & Certifications

Bachelor of Technology (Electronics & Communication)

Jawaharlal Nehru Technological University, Hyderabad (JNTUH)

2011

Certifications

- ▶ Certified Kubernetes Administrator (CKA)
- ▶ AWS Certified Solutions Architect - Associate
- ▶ Microservices Performance Testing (Coursera)
- ▶ JMeter Advanced Performance Testing (Udemy)
- ▶ Site Reliability Engineering: Measuring and Managing Reliability (Coursera)