Abhijith Mengaram

Lead Software Engineer

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Software Engineering Lead with 10+ years in distributed, cloud-native and on-prem enterprise systems. Led development of a core business platform processing 125K+ monthly requests and supporting $100M+ in annual revenue. Strong foundation in modern design patterns, with a proven history of guiding global engineering teams, driving technical strategy, and aligning execution with business objectives. Focused on strengthening organizational processes, elevating engineering standards, and building teams that deliver scalable, resilient, and high-quality software.

WORK EXPERIENCE

Lead Software Engineering Consultant   2022 – Present

Client: Ford Motor Company, Remote, Raleigh, NC

- Technologies: Java, Spring Boot, GCP, Mongo DB, Kubernetes, MS Co-Pilot, LLMs
- Architect scalable, high-throughput FPS billing system integrated with Zuora, optimizing data flows and removing the dependency on costly data-warehousing infrastructure.
- Developed cloud-native solutions on GCP using Cloud Run/Functions, Pub/Sub, multi threading, asynchronous pipelines, and cloud-native design patterns for complex, high-volume workflows.
- Scaled predictive and non-predictive workloads using parallelism, achieving a 4.5× performance gain, thus by reducing Cloud Run execution time, vCPU-seconds, and overall GCP compute spend.
- Executed performance and load testing, optimizing critical APIs and batch jobs, preparing for production load, cutting latency by 85–90% and improving system reliability.
- Mentored engineers on technical design, coding standards, and best practices, fostering team growth, knowledge sharing, and technical maturity.
- Delivered POCs and optimization initiatives—introducing microservices, independent CI/CD pipelines, memoization, reducing algorithmic complexity—cutting engineering effort and improving delivery speed.
- Initiated and led data migration from Firestore to MongoDB, improving scalability, throughput, and query performance.
- Championed SOLID/DRY/KISS principles, continuous learning, and structured team knowledge initiatives, reducing technical debt and enhancing collaboration.

Lead Software Engineer   2018 – 2022

Client: Genworth Now Enact, Raleigh, NC

- Technologies: Java, Spring Boot, AWS, Angular JS, Oracle, Docker
- Owned engineering activities of $100M annual revenue underwriting platform, leading a global engineering team of 8 across multiple time zones.
- Contribute to the product roadmap with stake holders, set up a team to deliver it over the next 6-12 months, and plan implementation.
- Served as de facto engineering manager, coordinating on-site/offshore teams, hiring, coaching, mentoring engineers, and driving adoption of software craftsmanship practices.
- Partnered with CTO/Directors of Engineering and product stakeholders to define technical strategy, prioritize initiatives, and deliver PoCs for new product features.
- Architect, design, and lead development of micro-services, AngularJS frontends, driving scalable, maintainable, and high-performing enterprise solutions.
- Enhanced system performance, scalability, and reliability by modernizing architecture, optimizing CI/CD pipelines, and implementing observability tooling, enabling uninterrupted customer operations and reducing downtime by 30% and warranty costs by 45%.
- Conducted regular 1:1s, performance reviews, and career coaching, successfully promoting 5 engineers into senior and lead roles.

- Initiated process improvements and technical solutions that enhanced delivery predictability and reduced operational bottlenecks.
- Fostered a culture of continuous learning, collaboration, and knowledge sharing across distributed teams.

Lead Software Engineer   2016 – 2018

Client: ACT, Iowa City, IA

- <u>Technologies:</u> Java, Java Script, AWS, Spring Boot, Mongo DB, Elastic Search.
- Owned a dev portfolio of 12 Java/Spring micro-services handling student enrollment-management workflows, including architecture, design, deployments, and production support.
- Optimized the search infrastructure with Elastic-search indexing and Kibana, improving search performance and user experience.
- Served as the liaison between product, business, and development teams, ensuring seamless communication and alignment on priorities.
- Hands on development along with On-site/Off-shore collaboration, technical code reviews, 1:1s, and deployments.
- Reduced technical debt by 35% through strategic roadmap planning and refactoring, enabling faster feature delivery.
- Introduced containerization and cloud-native services, reducing runtime costs by 25%.
- Collaborated with risk, compliance, and analytics stakeholders to ensure solutions met enterprise standards.

Software Engineer   2015 – 2016

Client: Freddie Mac, McLean, VA

- Designed and developed ETL jobs using IBM InfoSphere DataStage (v9.1), enabling efficient data processing and integration.
- Remediated applications for code and infrastructure migrations, including transitioning batch servers from Solaris to Linux and databases from Sybase to SQL Server.
- Created and maintained batch job schedulers using Auto-sys to streamline and automate workflows.

Client: JPMC, Columbus, OH

- Developed global business document processing and billing systems using Spring MVC, Hibernate ORM, and used DB2 for efficient CRUD operations.
- Enhanced application security by implementing Fortify Audit Workbench to prevent SQL injection, XSS attacks, and UI error validation issues.

Java Intern   Sep 2014 – Jan 2015

Client: Pegasus Info tech, Dallas, TX

- <u>Technologies:</u> Java, HTML, CSS, Javascript, jQuery.
- Built applications with the Spring Framework, Java and integrating Hibernate for database persistence.
- Developed user interfaces with CSS, HTML5, and jQuery.

CERTIFICATIONS

- Certified ScrumMaster® — Scrum Alliance®
- DeepLearning.AI: Machine Learning, Neural Networks and Deep Learning, Improving Deep Neural Networks: Hyper parameter Tuning, Regularization and Optimization

EDUCATION

Sullivan University (Executive), Louisville, KY, 2017–2019

Master of Science — Management Information Technology

Capstone: Engineering Process Re-Architecture - Applied Bolman & Deal's Four-Frame Model to analyze

engineering team performance and organizational behavior. Authored a white paper proposing improvements in team structure, leadership clarity, decision-making efficiency, and cross-functional collaboration.

The University of Southern Mississippi, Long Beach**,** MS, 2013–2014
Master of Science — Computer Science
Thesis: T-Bar theory for grammar classification based on X-Bar Theory

JNTU, Hyderabad, India, 2008–2012
Bachelor of Technology — Computer Science and Engineering

TECHNICAL SKILLS

Cloud & DevOps: AWS, GCP, OpenShift, Kubernetes, Docker, Jenkins
Observability: Datadog, New Relic, SNOW
Databases: Oracle, PostgreSQL, MongoDB; **Messaging**: Pub/Sub
Languages: Java, Beginner Python, JavaScript, Angular; DevSecOps: Fossa, Sonar
Frameworks: Spring Boot, REST, GraphQL, gRPC
AI/ML: Trigger ML predictions on event data, Model tuning, inference optimization, GCP Vertex, BigQuery ML