# DARSHAN JAIN - Senior Lead Engineer

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## SUMMARY

Senior Lead Engineer with 7+ years of experience building scalable and secure backend systems using Java, Spring Boot, Python, and microservices. Proficient in designing RESTful APIs, integrating distributed systems, and deploying cloud-native apps on AWS and Kubernetes. Experienced in CI/CD, infrastructure as code, and observability. Proven leader in delivering production-grade software, optimising performance, and mentoring teams. Open to relocation.

## SKILLS

- **Core Competencies**: Application Development, Automation, Application Deployment, Code Review, Security Review, Vulnerability Assessment, Project Management, ETA Planning, Roadmap Planning, Risk Assessment, Cost Optimization, Cross-functional Collaboration, Hiring & Onboarding, Team Mentorship
- **Programming And Frameworks**: Java 17, Python, Spring Boot 3, Hibernate, Django, ExpressJS, REST API, Redis, Mockito, Swagger
- **Cloud And Infrastructure**: AWS (EC2, ECS, EKS, S3, Lambda, RDS, CloudWatch, IAM, SQS), Terraform, Docker, Kubernetes
- **Database Management**: MySQL, PostgreSQL, MongoDB, Supabase
- **DevOps And CI/CD**: Jenkins, Github Actions, AWS Code Pipeline, Gitlab Pipeline, ArgoCD, Github, Bitbucket
- **Monitoring**: Grafana, Prometheus, Loki, Tempo
- **Architecture:** Event-Driven Architecture, Microservices, Monolith, Infrastructure as Code (IaC), Secrets Management

## WORK EXPERIENCE

### Heaptrace Technology Private Limited | October 2018 - Present
*Senior Lead Software Engineer*

- Mentored and guided 4+ junior developers across Spring Boot, CI/CD pipelines, and clean code practices; conducted code reviews and technical onboarding sessions to accelerate productivity.
- Architected multi-tenant backend services in **Spring Boot** with role-based access controls, supporting isolated customer data access and secure tenant separation.
- Developed CRUD operations and business logic for core modules, following REST best practices and secured endpoints using Spring Security.
- Optimised API performance by using pagination, caching with **Redis**, and efficient query handling via Spring Data JPA.
- Integrated **Spring Security** with **Keycloak** for OAuth2-based authentication and fine-grained access control, ensuring HIPAA compliance across microservices.
- Designed and led implementation of an enterprise-grade **authentication system** using Keycloak and custom auth APIs, achieving 99.99% login success with zero reported auth issues in production.
- Architected a Secure and **HIPAA-compliant** Engage app for patients, using Amazon Lexbot, Lambda, and Twilio API, to streamline patient communication to gather patients' data in the EHR System.
- Designed an AWS SQS pipeline to aggregate patient vitals, delivering real-time, fault-tolerant ingestion across the EHR system.
- Launched a patient dashboard that accelerated clinical decisions using **SMART-ON-FHIR** apps.
- Integrated product analytics tool Mixpanel to track over 20,000 monthly user interactions, leading to a 60% increase in onboarding success through UX improvements.
- Developed Spring-based log API with **PHI**-masking logic to improve security compliance, and debugging time was reduced by 50%.
- Mentored junior developers, conducted code reviews, and led sprint planning with task estimation and risk management.
- Diagnosed and resolved frontend bugs in **React** applications by debugging UI interactions, API integration issues, and state management logic
- Created multi-stage Docker builds for microservices, enabling lightweight and secure container images.
- Improved CICD pipeline speed by 50% through **Docker** build caching and layer optimisation.
- Orchestrated event-driven data pipeline leveraging **AWS Neptune, S3, Lambda, and Serverless Framework**, which cut down data processing time from 4 hours to under a minute and minimised data discrepancies by 98%.
- Integrated sidecar containers for log forwarding using Fluent Bit, enabling centralised logging via **Grafana Loki** across all

microservices.
- Led implementation of multi-layered testing strategy (unit, API, UI), increasing test coverage to 85% and reducing post-release bugs by 90%.
- Diagnosed and closed 100% of Vanta-reported compliance issues across (SOC2, HIPAA) AWS, GitHub, and Slack within 48 hours, preventing audit delays.
- Set up secure networking with **AWS VPC** and **OpenVPN Server**, providing only relevant user access to the infrastructure.
- Migrated infrequent jobs/processes to the Lambda to reduce the cost by 75%, improving task execution speed by 5x.
- Saved over approximately $40,000 annually by shifting EC2 workloads to **Reserved Instances**, cutting compute costs by 60%
- Implemented Blue-Green deployments for 15+ ECS microservices, enabling zero-downtime releases and cutting rollback incidents by 90%.
- **AWS Partnership Program**: Led AWS Partner Network (APN) accreditation for years 2024 & 2025, resulting in a 50% increase in DevOps project acquisitions and earning $3,000 in AWS promotional credits.

## Bentley Systems | April 2018 - August 2018
*Associate Software Developer*
- Developed the "Forgot Username" module using **C#, MVC-5, KendoUI** for all V5 states, enhancing account recovery functionality and reducing support ticket volume
- Implemented a new role-based access feature, enabling fine-grained user permission control in the application.
- Enhanced the User Management module, improving admin workflows and making the UI/API interactions more robust and intuitive.
- Wrote new unit test cases and refactored legacy tests for controller logic, increasing code coverage and stability across key modules.
- Resolved multiple defects logged in **TFS**, ensuring quality improvements and reducing regression risks across production releases.

## PROJECTS & OPEN-SOURCE CONTRIBUTION

**AWS CodePipeline CLI**: *Github Link*
- Built aws-codepipeline-cli, a Bash script offering interactive pipeline discovery and execution via arrow navigation and search.
- Enabled profile support and integrated robust error handling on AWS CLI commands (CodePipeline).
- Added GitHub-based self-update functionality to ensure easy version rollout and maintenance.

**Kubernetics MCP Server**: *Github Link*
- A Python implementation of a Kubernetes Model Context Protocol (MCP) server, enabling AI agents to troubleshoot and manage clusters using natural language.
- Real-time AI diagnosis of Kubernetes problems (pod failures, logging issues) via structured prompts and built-in MCP tooling.
- Seamless support for Claude, Cursor via MCP allows natural-language interactions with cluster state

**RAG Application with Qdrant Vector Database**: *Github Link*
- A powerful retrieval-augmented Generation (RAG) application that leverages Qdrant vector database for intelligent document-based question answering. This application is designed for internal company knowledge base portals, providing accurate responses based on your organisation's documents.

**Ng-debounce-click**: *NpmJS Link*
- ng-debounce-click is the directive that helps to improve browser performance by reducing expensive/time-consuming function invocation.

## EDUCATION
**CDAC  IACSD Akurdi, Pune | August 2017 - February 2018**
*PG-DAC*
**MGM College of Engineering, Nanded | June 2013 - July 2017**
*Bachelor of Engineering, Computer Science*