

Swapnil Kharche

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Summary

Results-driven **Application Development Manager and Technical Lead** with **12+** years of experience across Government, Healthcare, E-commerce, and Financial domains, specializing in **modernizing large-scale, mission-critical systems** while **preserving** business continuity. Consistently drives client trust and revenue growth by **delivering high-impact projects, securing follow-on modernization programs**, and leading multi-stream teams with speed and quality. Known for translating complex domain and architectural challenges into secure, scalable platforms that reduce risk, optimize cost, and accelerate time-to-value.

Experience

Software Development Manager

Deloitte Consulting LLP, USA

07/2016 - Current

Engineering Leadership & People Management

- **Led and mentored 4 cross-functional teams** (15+ engineers, QA, designers) on a mission-critical government modernization program, driving high delivery velocity while maintaining quality and stakeholder confidence.
- **Established Jira UAT training and enablement initiatives** while coaching developers on proprietary tools, reducing onboarding time by **30%**, improving cross-team delivery productivity by **15%**, and elevating overall solution quality standards.
- **Directed stakeholder discussions**, defect triage, and UAT governance activities, accelerating testing cycles and **improving** overall project execution efficiency.

Architecture & System Design

- **Architected and delivered a 360° Unified Portal** consolidating data from **40+ legacy screens**, significantly reducing case access time by **70%** and improving user productivity.
- **Designed a centralized Interface Hub** integrating 52 partner interfaces as a **unified integration layer** for all inbound and outbound enterprise data flows, improving scalability and maintainability.
- **Developed and implemented audit trail and access governance components** within mission-critical government platforms, ensuring regulatory compliance, role-based authorization and authentication, and full **traceability** across **300+ screens**.

AI & Intelligent Systems Integration (LLMs, Automation, AI-Driven Engineering, Data Analytics)

- Built a **RAG-powered** internal documentation assistant using **Flask** and **ChromaDB** with semantic retrieval over **OCR-processed PDFs**, **reducing time-to-information by 75%+** and **reclaiming 2–3 engineering hours per developer per week**.
- Developed an AI-powered human-in-the-loop **Ticket Intelligence System** using **OpenAI, AWS Lambda**, and **n8n** to automatically classify, prioritize, and route **3K+** monthly support tickets with **91%** accuracy, reducing average routing time from hours to minutes.
- Built AI-enabled **workflow automation pipelines** integrating enterprise collaboration and productivity platforms, reducing manual review effort by **~60%**.

Backend & Distributed Systems Engineering (Java, Microservices, APIs)

- Delivered client-facing applications with optimized REST APIs, **cutting data transfer latency by 40%** and streamlining interdepartmental workflows.
- **Containerized Java applications** using **Docker** and implemented RESTful services, reducing environment-related defects by **30%**.
- **Designed and published a GraphQL API POC** integrated with AWS, influencing firm-wide adoption of modern API architectures.
- Enhanced application quality through JUnit-based **TDD**, structured logging with Log4j, and performance validation using JMeter.

Cloud & Cloud-Native Engineering

- **Deployed cloud-native applications on AWS EC2** by leveraging **S3, IAM, SES, and CloudWatch**, improving scalability and operational monitoring.
- **Containerized DB2 and SQL Server** using **Docker**, improving environment **consistency** and **accelerating** setup across teams.
- **Eliminated 6–12 hours of manual documentation** per screen by building an **AI-driven pipeline** that auto-generates Excel storyboards from Figma and legacy UI metadata, delivering a **40–70x** productivity gain.

DevOps, CI/CD & Automation

- **Automated 10+ complex batch processes**, reducing manual effort by **95%** and saving 3 days per execution cycle.
- **Owned, maintained, and scaled CI/CD pipelines** using **Jenkins** and **AWS CodePipeline** across multiple projects, reducing DevOps overhead and **eliminating the need for a dedicated engineer** while improving release stability and quality visibility.
- **Automated database backup and archival workflows**, cutting storage and operational costs by **75%** while improving reliability.

Agile Delivery & Engineering Process Excellence

- **Embedded Agile practices** across teams, accelerating project delivery by **20%** and improving operational efficiency by **35%**.
- **Built enterprise Jira dashboards and workflows**, reducing ticket logging steps by **33%** and improving managerial visibility by **25%**.
- **Standardized API and solution documentation in Swagger and Confluence**, migrated legacy artifacts to **improve cross-team clarity**, increased discoverability by **15%**, and supported zero-defect Go-Live releases.

- **Partnered with business process owners**, functional **SMEs**, and **senior stakeholders** to translate regulatory and operational **requirements** into technical specifications, supporting **zero-defect** Go-Live releases across compliance-sensitive government programs.
- High-Volume / Low-Latency Systems Experience
- **Modernized Government platform** supporting **5000+** users and **millions** of transactions, preserving business continuity and legacy parity.
 - Ensured **100% availability** of mission-critical batch jobs through proactive monitoring and issue resolution, preventing production outages.
 - Built a standalone large-scale search engine processing **100+** million scraped records, reducing data access time by **96%**.
- Data & Persistence (SQL / NoSQL / Performance Optimization)
- Migrated DB2 data, schemas, and queries to SQL Server using SSMA with full automation, ensuring data integrity and a seamless transition.
 - **Built an automated** checksum-based reconciliation tool to **validate** DB2 to Oracle data migration, comparing **300+ database tables** and **millions of records** to **detect** discrepancies and **reduce** manual verification effort by **~90%**.
- Innovation, POCs & Continuous Improvement
- Played a key role in securing a **14-year enterprise contract** by delivering high-impact architectural proofs of concept during client presentations.
 - **Drove enterprise workflow automation** using Python and Bash, delivering **120+ hours/year in productivity savings**, cutting client effort by **90%**, and reducing onboarding and development overhead by **80%** across Linux platforms.
- Research Assistant

Florida State University, USA

10/2014 - 05/2016
- Department of Economics
- **Scraped 100+ million web records** using Python, building a large-scale dataset to support advanced search applications.
 - **Developed a standalone search engine**, reducing data access time by **96%** and enabling faster research insights.
- Open-Source Contribution
- **Implemented word-wrap functionality** in Java, improving text editor usability.
 - **Enhanced hyper search results** by highlighting lines based on type, improving developer productivity.
 - **Added bug submission feature**, streamlining issue reporting within the jEdit platform.
- Education
- **Florida State University (FSU), Florida**07/2013 - 04/2016
Masters in Computer Science
 - **Pune University**08/2008 - 06/2012
Bachelor of Engineering in Computer Engineering
- Certifications and Publications
- Microsoft Certified: Azure AI Fundamentals ([882C19DB33DC1840](#))Microsoft
 - Fundamentals of Accelerated Computing with CUDA Python ([zDMnRFhoTLW1GIGLXCyzkA](#))Nvidia
 - Generative AI EngineerDeloitte
 - Building Scalable Java Microservices with Spring Boot and Spring Cloud ([4W3KX73VMXAF](#))Coursera
 - Generative AI Prompt EngineerDeloitte
 - White paper on Intranet Conferencing Solution in International Journal of Emerging Technology and Advanced Engineering ([IJETAE](#)).
- Achievements
- Honored with **Outstanding Performance Award** for Exceptional Coaching and Exceptional Team LeadershipDeloitte
 - **Recognized with an Applause Award** for automation solutions that delivered measurable time savings and cost optimization.Deloitte

Skills

Java | Spring Boot | Microservices | Python | RAG | Flask | ChromaDB | pgvector | Supabase | Tessaract | RESTful Web Services | GraphQL | Tomcat | Websphere | Docker | Kubernetes | Jenkins | SonarQube | Jacoco | CUDA | Oracle | MySQL | DB2 | NoSQL | Kafka | JPA | Hibernate | AWS (EC2, S3, SES, IAM, Lambda, Cloudfront, CloudWatch, CodeCommit) | Azure (API Management, DevOps, AI Fundamentals) | MS Entra (IAM/SSO exposure) | Compliance & Audit Workflow Automation | JMeter | OpCon Scheduler | HTML | CSS | Angular | React | JUnit | Log4j | TDD | Maven | Git | SVN | TFS | JIRA | X-Ray | Eureka | Microsoft Excel | n8n | Lovable | Figma | [Draw.io](#) | Sprint Management | COBOL | CoolGen | CopyBooks | JCL |