SAANYA DHIR

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EDUCATION

University of Maryland, College Park | M.Eng. Software Engineering | Graduate Certificate in Cloud Engineering **DAV Institute of Engineering and Technology, Jalandhar** | B. Tech in Information Technology

Dec 2025 Jul 2021

TECHNICAL SKILLS & CERTIFICATIONS

- Programming Languages: Java, Python, C++
- Testing & Automation: Selenium, Cypress, TestNG, JUnit, Cucumber, PageObjectModel (POM), Postman
- Cloud Platform: Amazon Web Services (AWS) S3, RDS, CloudTrail, KMS, IAM, WAF, EKS, ECS, CloudFront
- Infrastructure Management & DevOps: Docker, Kubernetes, Helm, AWS CloudFormation, CI/CD (GitHub Actions, Jenkins, Bitbucket)
- Monitoring & Logging: Grafana, Prometheus, OpenTelemetry, CloudWatch
- Database: SQL, MySQL, SQLite, MongoDB
- Project Management: Confluence, JIRA, Slack, ALM, gTest
- Certifications: Conformiq Green Belt, AWS Certified Developer Associate (in progress)

WORK EXPERIENCE

Catt Lab | Software QA Intern

Dec 2024-Present

- Executed 250+ manual and exploratory test cases across transportation platforms, identifying 80+ defects and ensuring comprehensive functional and UI validation.
- Automated 60+ test scripts using Cypress and Gherkin-based scenarios in Cucumber, reducing regression cycle time by 40% and manual testing effort by 30%; maintained scripts in Bitbucket for version control and collaboration.
- Performed 25+ pre/post deployment smoke and sanity tests across staging and production environments, helping ensure stable and bug-free releases.
- Led end-to-end regression testing across 5+ spring cycles and logged 50+ detailed issues in JIRA, contributing to a 20% drop in critical bugs postrelease.
- Collaborated with 4+ development teams to clarify ambiguous requirements and investigate unexpected behavior prior to defect logging, streamlining bug triage.
- Actively participated in agile ceremonies, aligning QA deliverables with sprint goals and supporting continuous release improvements.

Capgemini Technology Services | Software Engineer

Aug 2021-Aug 2023

- Led quality assurance for RBC's Wealth Management portal, automating 180 test cases (50% of total) in 2 months, cutting-down software bugs by 40% and boosting client satisfaction by 20%.
- Collaborated with developers, project managers, and business analysts across clientele to streamline Software Development Lifecycle, reducing project delivery time by 25% and post-launch defects by 25%.
- Created test plans, models, and generated test cases with Conformiq Creator 4.3, then refined scripts in MagiX for regression testing.
- Conducted API testing using Postman, identifying and resolving 95% of backend service issues, ensuring reliability and system performance.
- Mentored four new QA team members and served as the primary QA liaison across Dev, Security, and Infra teams.
- Awarded "Rising Star 2022" by Cappemini's Financial Services Business Unit.

PROJECTS

UpSkilled ~ A Learning Management System

Dec 2024

- Led QA initiatives for a microservices-based LMS platform built using React and Spring Boot with dashboards for instructors, admins, and employees.
- Created and executed **400**+ unit tests, achieving **90%**+ test coverage for frontend and backend with Jest and JMockit, reducing production defects by 30%.
- Automated 95% of regression tests using Selenium and increased release confidence while supporting faster deployment cycles.
- Collaborated closely with developers to validate grading workflows and assignment viewers, supporting a 40% boost in instructor efficiency and a 25% increase in course completion rates.

Kubernetes Deployment and Monitoring with OpenTelemetry

Dec 2024

- Deployed and managed a production-grade microservices application on AWS EKS, using Helm charts to modularize and maintain 11,000+ lines of Kubernetes manifests.
- Automated CI/CD with GitHub Actions for container builds and blue/green deployments, cutting rollback time by 60%.
- Implemented end-to-end monitoring with OpenTelemetry, Prometheus, and Grafana, enabling real-time tracking of service performance and reducing time-to-detect (TTD) for issues by 40%.
- Conducted smoke, regression, and performance tests post-deployment to staging environments, validating infrastructure resiliency and application health.
- Collaborated with DevOps and SRE teams to diagnose system bottlenecks, contributing to a 25% improvement in API response time under load.

Scalable and Secure E-Commerce Platform on AWS

Oct 2024

- Built and tested a high-availability e-commerce platform using AWS services including RDS (Multi-AZ), Auto Scaling, Load Balancer, and CloudFront.
- Performed security validation using AWS WAF and IAM roles, ensuring protection against SQL injection and XSS threats.
- Conducted load and stress testing for 50-250 concurrent users using Apache JMeter; monitored system health using CloudWatch and CloudTrail.
- Implemented CI/CD pipelines to deploy scalable infrastructure, supporting faster release cycles and minimizing manual intervention.