

SAYALI PATHAK

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Software Engineer with 5+ years of experience building scalable web applications using Java, JavaScript, and Spring Boot, and developing AI-powered solutions with LLM integration. Skilled in backend development, full-stack applications, and API design, with leadership experience driving Agile teams.

WORK EXPERIENCE

Industry Experience

Capgemini, India (*Senior Software Engineer*)

Sep 2021 – May 2023

- Increased self-service adoption by 40% by developing ServiceNow web interfaces using **JavaScript** and custom UI scripts
- Reduced IT request fulfillment time from 3–5 days to 1 day by implementing event-driven workflows
- Integrated ServiceNow with Salesforce CRM via **REST APIs** and scheduled jobs, streamlining cross-platform workflows
- Reduced incident resolution time by 10% through root cause analysis, workflow optimization, and recurring issue prevention
- Led a 7-member team, accelerating project delivery by 12% via iterative sprint planning, reviews, and agile ceremonies

Infosys Limited, India (*Software Engineer*)

Sep 2018 – Sep 2021

- Developed scalable **RESTful APIs** with **Spring Boot & JPA** to manage savings and loan accounts, supporting 1,000+ daily banking operations
- Implemented **JWT**-based SSO authentication with **Spring Security**, securing bank employee access to banking modules
- Improved customer transaction report performance by 30% via **PL/SQL** script optimization
- Optimized **SQL** query performance with caching strategies and indexing, improving database retrieval speed
- Enhanced system reliability by creating unit and integration tests with **JUnit** and **Mockito**, increasing test coverage by 25%
- Implemented **Jenkins CI** pipeline to trigger unit tests on every commit, ensuring consistent code quality before merges
- Authored detailed API specs, release notes, and technical documentation to support stakeholders and streamline collaboration

Research & Internship Experience

J&M Jewelry, USA (*Technology Intern*)

July 2025 – Present

- Automated vendor product ingestion pipeline, reducing manual updates by 80% and enabling real-time inventory synchronization on Wix e-commerce platform
- Developing AI-powered content workflows in n8n with Large Language Model (**LLM**) integration for blog draft creation, email approvals, and automated website publishing

Texas State University, USA (*Graduate Research Assistant*)

May 2024 – Dec 2024

Project: Smart Fall Detection - NSF-SCH funded

- Reduced alert latency by 30% by integrating **NATS.io** between Android wristwatch app and host server running Transformer ML model, enabling timely fall detection
- Developed a **Python** microservice to load and serve an ML model, enabling real-time **ML inference** for activity recognition
- Managed user and accelerometer data with Couchbase **NoSQL** for dynamic window sizing to scale on different ML models
- Secured application connections using **TLS encryption** and implemented token-based authentication to protect user data

PROJECTS

Mini Retrieval-Augmented Generation (RAG) Application

July 2025

- Developed an end-to-end pipeline to ingest PDFs, generate embeddings, and store vectors in ChromaDB for semantic retrieval
- Integrated multiple LLMs via APIs and designed retrieval logic to deliver relevant chunks for context-driven answers

Department Store E-commerce Website

Aug 2023 – Nov 2023

- Developed a full-stack e-commerce website using **Spring Boot, React.js, and MySQL**, with features like product browsing, shopping cart, payment processing, and inventory management
- Containerized the application using **Docker** and deployed it on **AWS EKS (Kubernetes)** infrastructure for scalability

TECHNICAL SKILLS AND CERTIFICATIONS

Certification: AWS Certified Solutions Architect – Associate

Programming Languages: Java, Python, SQL, PL/SQL, JavaScript

Technologies: HTML5, CSS3, JSON, REST API, Pandas, NumPy, PyTorch, TensorFlow

Frameworks and Databases: Spring Boot, React, Node.js, Hibernate, MySQL, Couchbase, Oracle, MongoDB

Cloud, DevOps, and Tools: AWS (EC2, S3, RDS), Docker, CI/CD, LLM Integration, Unix/Linux, GitHub, Jira, Postman

EDUCATION

Texas State University, San Marcos, Texas- Master of Science in Computer Science (**GPA – 3.82**)

May 2025

University of Pune, India- Bachelor of Engineering in Computer Engineering (**GPA – 3.77**)

May 2018