

# Deepanshu Kumar

Boston, MA

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## EDUCATION

Northeastern University, Boston, MA - *M.S. in Computer Science* (GPA: 4.0/4.0)

Jan. 2025 – Dec 2026

## TECHNICAL SKILLS

**Core Languages:** Java, Python, JavaScript, SQL, Swift  
**Backend Engineering:** Spring Boot, Spring AI, RESTful Services, Microservices, Node.js, React  
**AI / Machine Learning:** PyTorch, TensorFlow, Scikit-learn, Hugging Face Transformers, LangChain, LangGraph  
**AI Concepts:** Agentic architectures, reinforcement learning, on-device inference, model quantization  
**Web Technologies:** HTML5, CSS3, JavaScript, DOM, Puppeteer  
**Engineering Research:** Prototyping, performance evaluation, proof-of-concepts  
**System Design:** Distributed Systems, API Design, Clean Architecture, SOLID, MVC, MVVM, OOP  
**Databases & Streaming:** PostgreSQL, MySQL, MongoDB, Firebase Firestore, Apache Kafka, RabbitMQ  
**Cloud Infrastructure:** AWS, Azure, GCP, Docker, Kubernetes, Jenkins, GitHub Actions, Linux  
**Engineering Practices:** Agile, CI/CD, Unit Testing, Refactoring, Git, Code Reviews, JIRA

## EXPERIENCE

### Graduate Teaching Assistant

Sep. 2025 – Present

Northeastern University

Boston, MA

- Mentor 50+ master's students in Program Design Paradigms, teaching data structures, object-oriented programming, and design patterns in Java; perform detailed code reviews and provide targeted debugging guidance during weekly office hours.

### Senior Software Engineer

Mar. 2023 – Nov. 2024

Salesforce

Bengaluru, India

- Led Spring Framework migration from 5.x to 6.1.5 with Jakarta EE transition across 50+ Java microservices; resolved 15+ dependency conflicts to enable Java 17 compatibility while ensuring service stability and backward compatibility in a distributed system.
- Designed and implemented an Emergency Bug Fix (EBF) management system using YAML-based metadata, validation, and conflict detection; automated 70% of manual workflows and reduced deployment failures by 35% via reliable backend orchestration APIs.
- Defined API documentation standards and backend engineering best practices across 100+ developers in collaboration with cross-functional teams; improved onboarding efficiency by 40% and received [Staff Engineer recognition](#) for technical leadership and mentorship.
- Architected domain startup and shutdown orchestration services with multi-hop upgrade planning and automated rollback; enabled zero-downtime deployments for 200+ production domains while maintaining high availability and operational reliability.
- Engineered a scalable orchestration platform backed by PostgreSQL to support complex relational data models; exposed REST APIs to automate 70% of operational tasks, improving reliability and efficiency for enterprise-scale systems.

### Software Engineer

May 2021 – Mar. 2023

Salesforce

Bengaluru, India

- Executed Java 17 migration across 30+ backend microservices by upgrading Maven builds, integrating JAXB APIs, and modernizing HTTP client libraries; resolved 25+ runtime compatibility issues to support flexible Java 8–17 deployments.
- Developed RESTful backend services with OpenAPI 3.0 specifications and JSON schema validation for EBF workflows; integrated JIRA-based change management using Git, reducing manual coordination by 70% across multiple engineering teams.
- Built automated testing infrastructure supporting Spring 6.x and Tomcat 10.x migrations with Jakarta namespace validation; improved testability and achieved 90% unit test coverage, accelerating regression detection and release confidence.
- Authored and maintained centralized onboarding documentation covering 10+ backend services, DevOps workflows, and deployment procedures; reduced new engineer ramp-up time from 6 to 3 weeks and earned the company-wide Act as One Team award.

### Software Engineer

Aug 2018 – April 2021

VCTI and Cisco Systems

Bengaluru, Karnataka, India

- Engineered scalable and maintainable backend services of an [enterprise product](#) using Java and the Spring Framework to manage the lifecycle of network inventory, supporting thousands of network elements while gaining strong hands on Linux.
- Developed and integrated RESTful APIs, optimizing data flow and ensuring seamless communication between Java backend and JavaScript frontend for network alarm management.
- Contributed to the database design and wrote optimized SQL queries for the inventory and event management modules, reducing data retrieval times by 20%. Earned [recognitions](#).
- Drove 50% code coverage increase and bug prevention through JUnit/Mockito testing, while also excelling at explaining new UI-based Alarm/Event Catalog features for Cisco network element monitoring including protocols like BGP.

## PROJECTS

### Desktop Calendar | Java, MVC, SOLID, JUnit

Jan. – Apr. 2025

- Designed an enterprise Java application using MVC and SOLID principles; implemented scalable algorithms for recurring events and timezone handling across 50+ regions, processing 10K+ events with 95% JUnit test coverage.

### Research Assistant Ext. | JS, Spring Boot, Spring AI, Gemini

May – June 2025

- Built an end-to-end full-stack Chrome extension for AI-powered summarization; implemented a reactive Spring Boot [backend](#) handling 1,000+ concurrent users with sub-200ms response times, encryption, and REST APIs supporting the [frontend](#) with a [demo](#) available.