

# Dhruv Baraiya

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## EDUCATION

**Northeastern University** | Master of Science in Software Engineering Systems **Expected May 2026**  
*Courses - Object Oriented Design, Data Structures and Algorithms, Database Management Systems, Cloud Computing* *Boston, MA*

**DA-IICT** | Bachelor of Technology in Information and Communication Technology **Nov 2020 - May 2024**  
*Courses - Operating Systems, Object Oriented Programming, Distributed Systems, Software Engineering* *Gandhinagar, India*

## TECHNICAL SKILLS

**Programming Languages** : Java, Python, SQL, JavaScript, Shell/Bash Scripting, TypeScript  
**Frameworks & Libraries** : Spring Boot, RESTful APIs, Hibernate, JPA, NodeJS, ReactJS, Angular  
**Cloud & DevOps** : Docker, Git, GitHub Actions, Kubernetes, AWS, Microservices, Terraform, Ansible  
**Databases & Tools** : MySQL, MongoDB, Postman, JIRA, Maven, JUnit, Mockito, Linux

## CERTIFICATION

### AWS Cloud Practitioner

- Gained foundational knowledge of AWS cloud architecture, security, pricing to support efficient cloud solution design

## WORK EXPERIENCE

**MD Tech Services** | *Software Developer Intern* **Jul 2023 – Dec 2023**  
*Spring Boot, Java, MySQL, JWT, CI/CD Pipelines, Jenkins, Docker, JUnit, Mockito, Postman, JIRA, GitHub* *Surat, India*

- Developed and maintained **RESTful APIs**, improving **user authentication** and **data communication** between systems.
- Optimized **database performance** by redesigning schemas, indexing, and tuning queries, reducing retrieval time by **10%**.
- Implemented **role-based authentication**, enhancing session security and preventing unauthorized access.
- Automated **CI/CD pipelines** to streamline deployments, reducing **manual intervention** and minimizing **release errors**.
- Collaborated with **senior engineers** to apply best practices in API design, database tuning, and deployment strategies.
- Conducted **unit and integration testing**, resolving **8% of critical bugs** pre-deployment and improving **application stability**.

**DA- IICT** | *Software Developer* **Jan 2024 - Jun 2024**  
*Spring Boot, React.js, MySQL, ICICI Payment Gateway, REST APIs, Docker, CI/CD, JIRA, GitHub* *Gandhinagar, India*

- Built document request portal replacing university's **manual email-system**, enabling students to request documents digitally.
- Automated workflows for admin to manage **statuses and deliveries**, streamlining processing across India and internationally.
- Enhanced **API response handling and database queries**, improving performance for high-volume document processing.
- Collaborated with **university staff** to gather requirements and refine features, aligning with **real-time operational needs**.
- Deployed the application on **secure cloud environment**, ensuring consistent uptime and reliable access for students and staff.
- Reduced admin workload by **6+ hours a week** by digitizing manual processes and improving **request tracking efficiency**.
- Recognized by **DA-IICT with a Certificate of Completion** for deploying the portal, now **officially used by the university**.

## ACADEMIC PROJECTS

### Scarlet Lifeline (Blood Donation Application) | *Object-Oriented Design Project*

*Spring Boot, React.js, MongoDB, REST APIs, JWT*

- Designed a modular donation system using **OOD and SOLID principles** for real-time **donor-hospital coordination**.
- Secured user data using **BCrypt** authentication and implemented **Role-Based Access Control (RBAC)** to manage permissions.
- Improved **emergency response time** by optimizing donor search queries and enhancing database efficiency.

### AWS Cloud Deployment Pipeline | *DevOps Infrastructure*

*GitHub Actions, Jenkins, Docker, Kubernetes, Terraform*

- Built **automated CI/CD pipelines** to streamline deployments and **minimize manual errors** across environments.
- Deployed containerized apps with Kubernetes and Terraform, improving **scalability** and system **observability**.
- Monitored system performance using **Kubernetes dashboards**, improving **fault detection** and **resource utilization**.

### Learning Management System | *Full Stack Web App*

*Node.js, React.js, MongoDB, PayPal, Cloudinary*

- Developed an LMS with role-based access, course management, and **progress tracking**, enhancing **user experience**.
- Integrated PayPal for **secure transactions** and used Cloudinary to optimize media delivery for **200+ users**.
- Improved **frontend responsiveness** and **backend performance** to support **concurrent learners** effectively.