GAURAV RAKESH SINHA

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Education

Northeastern University Boston, MA

Master of Science in Software Engineering Systems Sep 2023 - Dec 2025

Mumbai University Mumbai, India

Bachelor of Engineering in Electronics and Telecommunication Aug 2017 - Jun 2021

Skills

Programming Languages: JavaScript, TypeScript, Java, Python, SQL

Web Technologies: ReactJS, REST API, JSON, OAuth 2.0, Node.js, Next.js, Redux, Redis, Elasticsearch, MongoDB, MySQL

Design / CMS / UX/UI: HTML, CSS, SCSS, WordPress, Figma, Persona, User Flow, Wireframe, Prototyping, A/B Testing

Other / Tools: NGINX, Cypress, JEST, Postman, technical writing, frontend development, problem-solving

Development Practices: Agile/Scrum, Git, Azure DevOps, Linux, Docker, RabbitMQ, AWS

Work Experience

Tata Consultancy Services Mumbai, India

Software Engineer Aug 2022 - Jul 2023

• Spearheaded the development and implementation of responsive, user-friendly web components and features for a fintech platform using **HTML**, **CSS**, **React**, and **JavaScript**, resulting in a 25% boost in user engagement

- Adapted to changing project demands in Agile, ensuring timely delivery of software features despite shifting priorities
- Utilized Docker for containerization, ensuring consistent development environments and streamlining the deployment process
- Built reusable components and used **React Hooks** for state and lifecycle management. Made API calls using **Axios** to fetch and parse JSON for DOM/CSS manipulations, leading to a 10% reduction in page load times
- Enhanced product discovery by incorporating advanced search and lazy loading, driving a 15% increase in conversion rates
- Managed offshore teams, led code reviews, and conducted sprint demos to ensure seamless project coordination and delivery

Associate Software Engineer

Jul 2021 - Jul 2022

- Initiated the transition from CSS to SCSS for improved styling and centralized management, optimizing front-end maintainability
- Performed end-to-end testing with Cypress, reducing production issues by 40% and enhancing system stability
- Developed comprehensive **automated tests** with Jest for React components, increasing code coverage to 90% and reducing manual testing time by 40 hours per week
- Demonstrated proficiency in all phases of the software development lifecycle (SDLC), from system design to operational stability
- Collaborated with consultants, product owners, and scrum master to design user stories, prioritize tasks, and manage backlogs
- Applied Object-Oriented Programming (OOP) principles while practicing clean and efficient coding methods, maintaining strong
 documentation standards, and contributing to best practices in software development methodologies

Projects

Present

(Next.js, Redux, React DND, REST APIs, MongoDB, TypeScript, Tailwind CSS)

- Created a web application using Next.js, enabling users to design and share custom animation-based presentations
- Enhanced application performance with Redux for streamlined storage of element states
- Implemented server-side rendering to enhance data fetching and initial page load speeds for presentation and user profiles

Sentiment Analysis Application

(React, Flask, Spring Boot, Docker, Terraform, AWS EKS)

- Designed a Flask microservice to analyze sentiment polarity of sentences using TextBlob, returning results to the frontend
- Deployed the application in a containerized environment with Nginx as the web server, and used EKS to manage containers
- Implemented REST API endpoints with Spring Boot to handle HTTP request, functioning as a bastion server with JWT security

Tweet Hub

(React, Python Flask, Redis, AWS)

- Developed a web application for publishing tweets, monitoring Twitter feeds, and managing user authentication using JWT
- Implemented RESTful API endpoints with Flask to facilitate real-time tweet posting, integrating seamlessly with the frontend
- Utilized AWS ECS and ECR for deploying containerized backend services, ensuring scalable cloud-based operations, and leveraged AWS CodeBuild to streamline the CI/CD pipeline