GAURAV RAKESH SINHA

sinha.g@northeastern.edu | +1-857-398-3073 | LinkedIn.com/sinhagaurav7 | GitHub.com/sinha-gaurav-7 | Boston, MA
Portfolio: https://portfolio-deploy-tan.vercel.app/

Education

Master of Science in Software Engineering Systems | *Northeastern University | Boston, MA*   **Expected Dec 2025**

<u>Relevant Courses:</u> *Object Oriented Design, Web Design / User Experience, Data Structures, Advance Big-Data Applications / Indexing, Theory & Applications of Gen-AI*

Bachelor of Engineering in Electronics and Telecommunication | *Mumbai University | India*   **Sep 2017 - May 2021**

Technical Skills

Programming Languages	:	Java, Python, SQL, C, C++, Bash
Web Technologies	:	HTML, CSS, SCSS, JavaScript, TypeScript, Vercel, REST API, JSON, OAuth 2.0, Figma
Libraries & Frameworks	:	React, Node.js, Next.js, Cypress, JEST, Selenium, Redux, Maven
Database Technologies	:	MySQL, MongoDB, Redis, PostgreSQL, ELK Stack
Gen-AI & ML	:	PyTorch, TensorFlow, LLM (GPT), CNN, RNN, Transformer
Software Paradigms	:	Agile/Scrum, Git, Azure DevOps, Docker, AWS, client/server architecture, RabbitMQ, Slack
Soft Skills	:	problem-solving, decision-making, time management, communication skills

Professional Experience

Tata Consultancy Services | *Mumbai, India*   ***Software Engineer***   **Aug 2022 - Jul 2023**

- Led development of responsive, user-friendly fintech web features using **React**, and **JavaScript**, boosting user engagement by 25%
- Adapted **Agile** methodology to develop the given user stories, prioritize tasks, and ensure timely delivery of software features
- Developed **10+ microservices**, containerized them with **Docker** alongside DevOps team, accelerating deployment efficiency
- Optimized the existing codebase by 20% and UI consistency through the development of **reusable React components**
- Simplified code complexity by 25% using **React Hooks** for state and lifecycle management
- Enhanced product discovery by incorporating advanced search and lazy loading, driving a **15% increase in conversion rates**
- Assured seamless project delivery by coordinating with offshore teams, leading **code reviews**, and conducting sprint demos

Tata Consultancy Services | *Mumbai, India*   ***Associate Software Engineer***   **Aug 2022 - Jul 2023**

- Performed **end-to-end testing** with Cypress, reducing production issues by 40% and enhancing system stability
- Improved **code coverage to 60%** by developing unit tests with Jest for React components, resulting in more reliable code
- **Collaborated** with the backend team to integrate API endpoints into the frontend using **Axios**, ensuring accurate data display
- Initiated the transition from **CSS to SCSS** for improved styling and centralized management, optimizing front-end maintainability
- Demonstrated proficiency in all phases of the software development lifecycle (**SDLC**), from system design to operational stability
- Utilized **Git** for version control and engineered high-quality code by applying **OOP principles** like inheritance and polymorphism

Projects

Presentation Generator | *Next.js, Redux, React DND, MongoDB, TypeScript*   **Sep 2024 - Present**

- 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

Gen-AI Driven Trader Chatbot | *React, Python, Llama 3.2, PyTorch, NLP, Node.js*   **Sep 2024 - Present**

- Developed a Python chatbot using Llama 3.2, trained on Q&A pairs from trader interviews to simulate realistic investor conversations
- Implemented NLP techniques with **PyTorch** to enhance chatbot understanding and response accuracy
- Built a **React** frontend and Node.js backend, enabling real-time user interactions with the chatbot

Tweet Hub | *React, Python Flask, Redis, AWS*   **July 2024**

- 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
- Achieved scalable cloud operations by deploying 3+ microservices on **AWS ECS/ECR**, streamlining CI/CD with AWS **CodeBuild**

Sentiment Analysis Application | *React, Flask, Spring Boot, Docker, Terraform, AWS EKS*   **May 2024**

- 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