

ANUPAMA SINGH

Software Engineer — Backend & Systems
San Jose State University, CA

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EDUCATION

- **San Jose State University** California, USA
Master of Science in Software Engineering Aug 2025 – Present
 - Data Structures & Algorithms, Operating Systems, Database Systems, Distributed Systems, Machine Learning
- **Oriental College of Technology, RGPV** Bhopal, India
Bachelor of Engineering - Electronics & Communication 2015 – 2019
 - CGPA: 8.02 / 10

TECHNICAL SKILLS

Languages & Frameworks: C++, Java, JavaScript, Python, HTML, CSS, Angular 14, React.js, Spring Boot, Node.js

Databases & Tools: MySQL, PostgreSQL, MongoDB, Git, Postman, Swagger, Gradle, Kubernetes, Docker, Prometheus

EXPERIENCE

- **Tata Consultancy Services** Pune, India
Tech Lead — Front-End Developer Jan 2024 – Aug 2025
 - Led development of 10+ features using Node.js on SSBT runtime, improving application runtime performance and stability.
 - Reduced page reload time by 45% by optimizing UI workflows and introducing caching strategies.
 - Improved system efficiency by 25% by resolving critical issues in Kubernetes deployments on Microsoft Azure.
 - Designed and developed a full-stack Spring Boot application with scheduled batch jobs to transform encrypted data, increasing account creation by 68%.
 - Simplified monolithic architecture using jQuery and Thymeleaf, consolidating 100+ lines of code.
 - Automated file search and download using advanced Regex patterns, saving 7 hours per week of manual effort.
- **Tata Consultancy Services** Pune, India
System Engineer — Front-End Developer Nov 2022 – Dec 2023
 - Developed Angular 14 single-page application integrating 5 backend services with centralized visibility.
 - Tested and validated REST APIs using Postman, ensuring reliable service communication.
 - Modernized legacy applications to ECMAScript standards, delivering a defect-free solution.
 - Engineered a React + Shadcn/UI proof-of-concept to dynamically merge SOP PDFs, improving maintainability.
 - Built a reusable dynamic form-builder solution similar to Google Forms, reducing development time by 30%.
- **Accenture** Pune, India
Application Development Analyst Jan 2020 – Oct 2022
 - Developed AI chatbots using Amazon Lex and Dialogflow to automate internal user interactions.
 - Implemented Angular and Spring Boot based CI/CD pipelines, reducing deployment time by 90%.
 - Built Electron-based Windows desktop application reducing data synchronization time by 98%.
 - Designed NLP-based PoC using neural networks, reducing support ticket volume by 27%.

PROJECTS

- **Master's Project - Clinical Trials Management System (Software Enterprise Platform):** Designed an enterprise-grade clinical trials platform with modular architecture supporting end-to-end trial lifecycle management. Implemented RESTful APIs, role-based access control, and secure data handling workflows for sensitive clinical data. Modeled relational schemas with validation rules to ensure data integrity and regulatory-aligned access. Integrated application monitoring using Prometheus for metrics collection and Grafana dashboards for system health, performance tracking, and observability.
- **Master's Project - Database Analytics using Naive Bayes Classifier:** Designed a data-driven system leveraging relational databases to perform probabilistic classification using the Naive Bayes algorithm. Implemented data preprocessing, feature extraction, and model evaluation workflows on structured datasets. Applied classification results to enable efficient querying, pattern identification, and decision support on large-scale data.
- **Enterprise and Academic Projects:** Built a Progressive Web Application using Angular with offline support and performance optimization. Developed E-commerce backend APIs using Next.js with secure routing and database integration. Created React and JavaScript-based UI applications emphasizing component reusability and user experience. Designed an Automatic Railway Gate Control System integrating sensors, controllers, and real-time decision logic.

ACHIEVEMENTS

Professional: On-the-Spot (Team) Award - TCS (Jan 2024); Xcelerate Warrior Appreciation - TCS (Dec 2023); Client Deliverables Excellence Award - Accenture (May 2022).

Academic: 1st Runner-Up - Robo Race (SAM Group of Institutes); 2nd Runner-Up - TechFizz2K16 Robotics (Oriental College of Technology).